03

REPORT,

ON THE

ADMINISTRATION

OF THE

BOMBAY PRESIDENCY

FOR THE

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YEAR 1901-1902.

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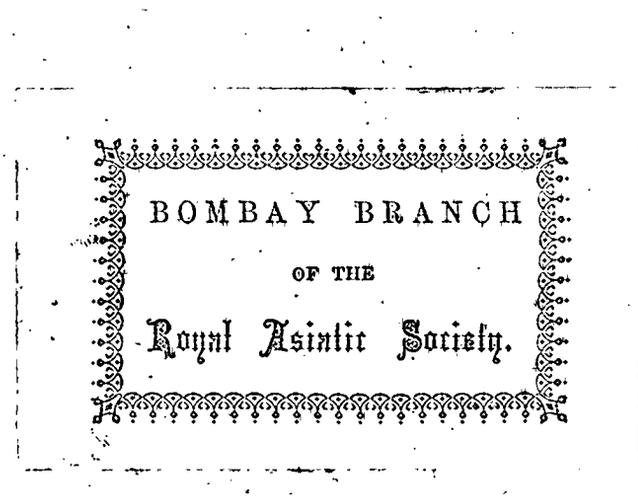

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PART I.

PART I.

SUMMARY.

Introduction.

1. The recurrence of the particular conditions which have stood out with disastrous prominence in the history of the Bombay Presidency during the last decade continued to be a signal feature of the events of the year 1901-02. The process of recuperation which, it had been hoped, had set in in the previous year in parts of the Presidency, was considerably retarded by a third unfavourable season following immediately on two seasons of more or less intense scarcity. In parts of the Dakhan, as well as in Gujarát, the effects of light and intermittent rainfall were aggravated by the ravages of locusts during the *kharíf* season, while the early withdrawal of the later rains caused an almost total failure of the rabi harvest. Relief works were continued throughout the year and attracted almost as large a number as in the previous year, though, owing to the fall in prices, the total numbers relieved showed a considerable decrease. Plague continued to be prevalent, the mortality being the highest on record, but in other respects the public health showed a material improvement. A specially satisfactory feature was the decline in the death-rate from 70 per mille to 37, due to the absence of cholera and of the fever and dysentery which had decimated Gujarát in 1900-1901. Except in Gujarát, the area under cultivation showed a small increase, which was most noticeable in Sind. There was an appreciable decline in crime chiefly in consequence of the breaking up of the Bhil gangs in West Khándesh and Ahmednagar. The depression in the mill trade disappeared with the re-opening of the China markets and the exports of yarn, as well as the out-put, showed considerable increases. Trade on the whole experienced a brisk revival, the imports and exports at the Ports of Bombay and Karáchi reaching the highest level for the last five years; but much of this revival reflected an improvement in districts outside the Presidency. Far more satisfactory were the arrest in the movement of food-stuffs and the beginnings of an increase in exports of grain. With a partial return to normal conditions, there was a revival in civil litigation accompanied by an increase in the revenue from stamps. Better harvests and increased cultivation in Sind among other causes accounted for an increase in the Land Revenue. On the whole Provincial Revenues showed some recovery from the depression of previous years. Owing chiefly to the prevalence of plague Primary Education remained at a lower level than it had reached ten years before. Collegiate and Technical Education, however, continued to show an improvement.

Personnel of the Administration.

2. The Right Honourable Henry Stafford Baron Northcote, G.C.I.E., continued to hold the office of Governor and President in Council throughout the year. The Honourable Sir Edward Charles Kayll Ollivant, K.C.I.E., I.C.S., continued to hold office as Second Member of Council until 24th April 1902, when he was succeeded by the Honourable Mr. Edmund McGildowny Hope Fulton, I. C. S. The Honourable Mr. James Monteath, C.S.I., I. C. S., became Second Member of Council on the retirement of Sir Charles Ollivant.

His Excellency the Governor's movements

3. His Excellency the Governor visited Ahmednagar (June 14th), Belgaum (July 22nd—25th) and Bijápur (July 26th—28th). On August 28th His Excellency travelled to Surat *viâ* Bombay, returning to Poona on August 31st. On October 15th he proceeded to Mahábaleshwar *viâ* Bhor. On November 14th His Excellency returned to Bombay, which he left on the 22nd for a tour in Káthiáwár, returning on December 11th. On the 20th December the Governor proceeded to Calcutta and returned *viâ* Agra and Delhi on January 7th. On the 24th March he travelled to Ratnágiri and proceeded thence to Mahábaleshwar (March 26th).

Famine.

4. With a light and intermittent monsoon the season of 1901 presented a close resemblance to that of 1900. Breaking late in July, the early rains were only barely sufficient for the kharif crops in the Dakhan and Gujarát, while the winter rains failed almost entirely in Gujarát and were deficient elsewhere. The situation was aggravated by an unprecedented plague of rats and locusts which caused considerable damage in Gujarát and parts of the Dakhan and Karnátak. In the districts of Ahmedabad, Kaira, Panch Maháls, Ahmednagar and Bijápur the estimated outturn of rabi and kharíf crops varied from 8 to 45 per cent. of the normal; in Broach, Surat, Khándesh, Poona and Belgaum it was between 50 and 70 per cent., while in the remaining districts it was above 70 per cent. The importation of cheaper grain from other parts of India, where the season was more favourable, kept prices at a much lower level than during the previous year. In Gujarát, however, the advantage was partly counterbalanced by the contraction in the supply of edible grass seeds on which large numbers had subsisted for several months in 1900-1901. Relief measures were continued in Northern Gujarát, in parts of Southern Gujarát, of the Dakhan and Karnátak and in the desert portion of Thar and Párkar. The affected population numbered 4,189 thousands out of a total population of 8,776 thousands.

The decline in the numbers on relief, which had commenced in July 1901, was maintained up to the end of November, when the numbers stood at 42,000 as compared with 376,000 at the end of August. From December the numbers rose steadily (excepting a temporary decline in March) till the end of May, when they stood at 260,000. The rainfall of June effected a reduction of 23,000, but in July, owing to the uncertainty of prospects of the season, there was again a rise, and the numbers which at the end of that month stood at 239,000, rapidly went up till the third week of August, when the maximum (400,000) was reached. Since then there has been a steady decrease owing to the favourable turn in the season. The maximum in 1902 was not much lower than the highest number reached in 1901 (477,000), but the total numbers relieved during the year under report were considerably smaller than in the preceding year. This was due mainly to better harvests in Southern Gujarát and the greater part of the Dakhan, and to lower prices.

Except in the Panch Maháls and Khándesh, relief to the able-bodied was given mainly on large works under the Public Works Department Agency. In the two districts named, where the bulk of the relief population consisted of Bhils or other aboriginal tribes, the system of small village works prevailed, large works being at the same time opened in other parts of the district. Special relief to weavers in their own craft was given on a small scale from State funds, supplemented by grants from charitable funds, in some tálukas of Bijápur and from Municipal funds in the towns of Gokák and Athni in the Belgaum District.

Owing to the continued deficiency in rainfall the sub-soil water level became much lower than in the preceding year, and further grants for the

temporary improvement of water-supply had to be made. In Gujarát special facilities were afforded to the people in the way of expert advice and boring appliance were distributed in rural tracts.

There was no scarcity of fodder and no special measures were required for the preservation of agricultural cattle.

The expenditure on direct famine relief from 1st April 1901 to 31st March 1902 amounted to nearly 79 lákhs of rupees, the indirect charges to about 6½ lákhs, while between July 1901 and March 1902 a sum of 15½ lákhs was disbursed from charitable relief funds. In April 1902 the District Officers had in their hands nearly 4 lákhs of charitable funds, all of which has probably been since utilised. Tagái loans for well-sinking and for other agricultural purposes were granted in the affected tracts to the extent of about 50 lákhs of rupees during the financial year 1901-1902 and a further sum of nearly 17 lákhs was advanced up to the end of July 1902. Out of the total land revenue demand (364 lákhs of rupees in round figures) of the Gujarát, Dakhan and Karnátak districts for the revenue year 1901-1902, including arrears on account of former years, 219 lákhs were collected or in process of collection at the end of the year and 145 lákhs remitted. The remission in the Thar and Párkar district amounted to Rs. 1,16,000.

For the twelve months ending 31st July 1902, the death-rate *per mille* was 48 in Gujarát and the affected districts of Karnátak and 34 in the Dakhan compared with a decennial mean of 35 *per mille*. For the affected districts as a whole it was 40 *per mille*. The high mortality in Gujarát was due to fever and in Karnátak to plague.

Among *Native States*, Pálanpur and the small States of the Mahi Kántha and Rewa Kántha Agencies in Northern Gujarát were the most severely affected by famine, and there was considerable immigration into British territory from those States as well as from Káthiáwár, Baroda and Márwár. None of the other States was seriously affected.

5. There was a very material recrudescence of plague during the year, 281,740 cases and 205,920 deaths being registered up to May 31st, against 55,965 cases and 44,040 deaths for the same period in 1900-1901. Plague.

During the month of June 1901 the usual general subsidence of plague in the Presidency took place, the numbers of cases and deaths reported being 3,143 and 2,353, respectively. The figures rose during July (8,105 cases, 5,883 deaths), August (17,942 cases, 12,978 deaths), September (33,173 cases, 23,444 deaths), and October (45,065 cases, 31,639 deaths); a slight improvement was noticeable during November (39,377 cases, 29,161 deaths), December (29,871 cases, 22,106 deaths) and January 1902 (27,463 cases, 20,590 deaths), after which the figures remained steady in February (28,475 cases, 20,868 deaths) and March (27,887 cases, 20,204 deaths). In the hot weather the number of cases largely diminished—16,872 cases and 13,125 deaths being reported in April and 4,367 cases and 3,569 deaths in May.

[In Bombay City the disease was at its worst during February (3,245 cases, 2,568 deaths), March (4,325 cases, 3,656 deaths) and April 1902 (3,242 cases, 2,833 deaths).]

In Karáchi the disease was present throughout the year, becoming epidemic from October 1901 until the end of the year. There were 2,494 cases and 2,025 deaths in all.

The Districts and States most seriously affected were Dhárwár, Belgaum, Sátára, Kolhápur and the Southern Mahrátta Country, Khándesh, Poona, Kaira, Surat, Broach, Káthiáwár, Cutch, Sholápur and Aundh.

Indigenous plague also appeared in the districts of Thána, Násik, Kánara, Kolába, Ratnágiri, Hyderabad, and in the States of Janjira, Rewa Kántha, Sachin and Savanur, but in none of them did it assume a serious form. The epidemics which occurred in the towns of Bombay, Karáchi, Belgaum, Násik, Poona, Sátára and Cutch Mándvi were milder than in previous years, while in the towns of Broach, Dhárwár and Hubli they were more severe.

[There were no important changes in the plague administration or the plague policy during the year. The charge of plague operations and the executive control of the medical and nursing establishments in the City of Bombay were during the year transferred to the Executive Health Officer of the Bombay Municipality.]

In October 1901 Pálghar and A'nand on the B. B. & C. I. Railway, Kalyán and Sholápur on the G. I. P. Railway, and Poona and Hubli on the S. M. Railway were made Medical Inspection Stations. In March 1902, however, the inspection stations at Poona, Sholápur and Hubli were closed, Dhond and Manmád on the G. I. P. Railway being opened instead.

Sea Inspection under the Venice Sanitary Convention Regulations continued on the same lines as in the previous year.

[The incidence of the disease amongst Europeans was as follows:—Bombay City, 20 cases, 13 deaths, as against 16 cases, 7 deaths in the previous year; in the mofussil, 3 cases, 1 death, the same as last year.]

The greater part of Sind, the districts of Ahmedabad, Panch Maháls, Ahmednagar and Bijápur, and the States of Akalkot, Bhor, Pálanpur, Mahi Kántha and Sávantvádi were free from indigenous plague.

[The people availed themselves of inoculation to a less extent than in the previous year, the distribution of the operations performed being as follows:—Bombay City, 1,054; Poona District, 8,895; Karáchi City, 680; Kánara District, 530; Belgaum District, 1,049; and other places, 2,173, a total of 14,381, against 28,546 in the previous year.]

Native States.

6. Out of the 363 Native States under the political control of the Bombay Government, 15 were under British administration at the end of the year. Two of these, Váo and Dahália, were brought under management in consequence of indebtedness. I'dar was released from management on the installation of His Highness Major-General Mahárájj Dhiraj Sir Pratab Sing Bahádur, G.C.S.I., C.B., A.D.C., on the vacant Gadi.

The season was only slightly more favourable than that of 1900-1901. The light and intermittent character of the monsoon was, particularly in the Gujarát States, insufficient for the kharif crops, while the rabi suffered severely from damage caused by rats and locusts. In the Pálanpur Agency, the Mahi Kántha and the Rewa Kántha States relief was organised early in the cold weather and continued throughout the year. In the Dakhan the affected districts were Jath and Daphlápur. Food stuffs, however, never advanced in price to any marked degree, and there was a very appreciable diminution in the proportions of violent crime. Except in Kolhápur, the Southern Mahratta Country and the Khairpur State there was a material amelioration in the public health. Births were more numerous than in the previous year by 2,011, while the number of deaths decreased by 97,177. The improvement in the death-rate was chiefly marked in the Mahi Kántha States. In Kolhápur, and more particularly in the States of the Southern Mahratta Country, there was a very severe outbreak of plague, no less than 19,010 deaths being registered in the latter district alone. There was no marked fluctuation in registration or civil litigation. In spite of a decrease in the number of schools, the attendance of pupils

improved by 6,730, the increase being chiefly found in the States of the Northern Division. The revenue collections amounted to Rs. 3,91,63,188, an advance of Rs. 38,91,624 on the figures for the previous year, but still considerably short of the average anterior to the famine. Many of the Gujarát States, notably those of the Mahi Kántha and Rewa Kántha Agencies, were compelled to raise loans from Government to meet urgent administration charges. The substitution of British Indian for local currency was completed in Cambay. The sea-borne import trade of Cutch and the maritime States of Káthiáwár showed a further decline as compared with the previous year, the decrease being due to a largely diminished demand for food stuffs. The exports from the Káthiáwár ports, on the other hand, advanced very considerably.

Great Trigonometrical Survey.

7. Operations in connection with the Great Trigonometrical Survey were continued in Sind and in the Khairpur State by a party of the Survey of India. Traversing by theodolite and triangulation were completed over an area of 1,763 and 2,026 square miles respectively, while a detail survey on the scale of 2 inches to a mile was carried out over an area of 1,562 square miles.

Tidal Operations.

8. Automatic tidal observations were continued at the same stations as in the previous year.

Revenue Surveys and Settlements.

9. No surveys were undertaken during the year. Revised rates were introduced in one táluka of Broach and two of Khándesh.

Bombay Forest Survey.

10. The party of the Survey of India at work in the Presidency continued its operations in the districts of Thána, Násik, Belgaum, Dhárwár, Kánara and Kolába.

Land Records.

11. The past year witnessed the introduction of a Record of Rights in all but four districts. In connection with the above, survey classes were held for the training of village accountants.

Occupied Land.

12. The area under cultivation showed an increase of 50,000 acres. As in the previous year, the decline in the occupied area was most marked in the Northern Division, all the districts excepting Thána showing a decrease. In the Central Division the extension of cultivation in Khándesh counterbalanced the contraction in the Násik and Poona Districts. There was very slight variation in the Southern Division. The increase noted in 1900-1901 in Sind was more than maintained in the past year.

Wards' and other Estates under the management of Government.

13. The Collectors had 111 estates under management. The Tálukdári Settlement Officer was in charge of 611 estates: but the management was greatly hampered by the adverse season conditions. Out of a demand of Rs. 13 lákhs, a little more than 2½ lákhs were collected and remissions to the extent of Rs. 3 lákhs were granted. A sum of 1½ lákhs was distributed as tagávi. In Sind, excepting those encumbered estates in the charge of the Collectors of Karáchi and Lárkhána, the other encumbered estates, 524 in number, were under the Manager, Encumbered Estates. The net result of the year's operations, after liquidating loans and debts of the value of nearly Rs. 2 lákhs, was a credit balance of Rs. 1,34,473.

Legislation.

14. Four measures were passed by the Bombay Legislative Council and received the assent of His Excellency the Governor General. These were Acts for the amendment of (1) the Bombay A'bkári Act of 1878, (2) the Bombay Land Revenue Code of 1879, (3) the Dakhan Agriculturists' Relief Act and (4) the Karáchi Port Trust Act of 1886. Four Bills were pending consideration at the end of the year.

Police.

15. Excluding the temporary forces employed on famine and plague duty, the total strength of the Police of the Presidency showed a small increase of 114

men. In addition a special force was enlisted for operations against the West Khándesh Bhil dacoits. There was, however, a decrease in the cost of establishment—mainly owing to the discontinuance of payment of grain compensation. The education of the Police, showed no improvement. Except in the case of the Bombay City Police, both departmental and judicial punishments showed a material decrease. With some amelioration in famine and other disturbing conditions there was a substantial decline in crime both cognizable and non-cognizable, though there was an increase in the value of property stolen. Serious crime, especially murder and dacoity, showed a decrease. In West Khándesh the special measures taken against the Bhil dacoits resulted in a return to normal conditions. In Ahmednagar the capture of the noted outlaw Kanhia and his gang was followed by a general pacification of the district. Operations were also undertaken against gangs of Kolis living in the Násik and Thána borders. Undecided and pending cases showed unappreciable variation. There was a slight decline in the percentage of cases successfully investigated by the Police, convictions being obtained in 79 per cent. of the cases disposed of by trial as against 83 in 1900. A Criminal Investigation Branch was organised and brought into working order during the year. The Criminal Identification Branch made considerable progress in replacing anthropometrical measurement cards by finger-tip impression slips; and instruction in connection with this branch of Police duties was given to Police officers from various Native States under the control of the Bombay Government.

Vagrants.

16. The total number of vagrants admitted into the Government Workhouses was 80, including one female. The charges incurred in connection with the Workhouses and the Vagrancy Act amounted to Rs. 7,923.

Wild Animals and Snakes.

17. There was a large increase in the number of persons and cattle killed by wild animals and snakes. Deaths from snake-bite were most common in Ratnágiri, while the largest number of persons killed by wild animals in any one district was in Khándesh. Cattle mortality was highest in Kánara. Rewards for the destruction of wild animals were paid to the extent of Rs. 3,017. 513 new licenses to carry arms were granted during the year.

Chemical Analysis.

18. The number of analyses increased by 992 to 4,840, the highest on record. The increase was general, but occurred chiefly in examinations of goods for the Customs and A'bkári Department. Cases of human and cattle poisoning numbered 87 and 108 respectively.

Criminal Justice

19. Owing partly to the large decrease in offences under the District Municipal Act, the number of offences reported declined from 296,256 to 171,283. Of this total 89 per cent. were reported as true. Of the 313,314 persons involved in cases 39 per cent. were convicted while 45 per cent. were acquitted. Preventive action by Magistrates in the shape of proceedings for security for good behaviour and proceedings to prevent breach of the peace was taken in 3,659 cases. The average duration of cases was reduced by nearly one-half. Death sentences were less numerous by eleven than in 1900-1901. The amount of fines imposed decreased by over a lákh; but there was an increase in the percentage of whipping to other punishments. 38 per cent. of appeals preferred were rejected, while in 35 per cent. the sentences were confirmed. There was a material decrease in the number of persons tried by jury and assessors.

Prisons, Civil and Criminal.

20. The number of prisoners confined in the Prisons and Jails fell from 148,330 to 101,191. The death-rate per mille sank from 56·8 to 35·0. The dietary charges decreased from Rs. 40-15 per head to Rs. 39-2. The cash earnings per head of the average number sentenced to hard labour rose from Rs. 5-6 to Rs. 10-7. The number of prison offences of all kinds committed by prisoners rose fom 9,510

to 10,769, consequent on a stricter adherence to Prison Regulations than was possible in the overcrowded condition of the jails in the previous year. Admissions to hospital were more numerous than in the previous year. There was no epidemic in any of the prisons.

Yeraoda Reformatory School.

21. The average daily number in the school was considerably less than in 1900-1901; and fewer applications were refused. The health and conduct of the school was satisfactory. Endeavours to trace the careers of discharged inmates showed that three were following the trade taught them in the school, while only two were re-convicted. A definite scheme for the technical instruction of each boy has been framed, but is as yet in the experimental stage.

Civil Justice.

22. The partial improvement in agricultural conditions was accompanied by an increase in Civil litigation, 22,266 more suits of an aggregate value of 391 lákhs being instituted during the year. There was an increase in the number of suits disposed of, while the average duration of contested and uncontested suits was considerably reduced. On the other hand, the average duration of appeals showed an increase. As in the previous year, a large majority (69 per cent.) of applications for executions of decrees remained infructuous; satisfaction in full being obtained in 12 per cent. only. The amount recovered in execution realised nearly Rs. 14½ lakhs more than in the previous year, while the number of persons imprisoned increased by nearly 100 to 973. Applications for declaration of insolvency were slightly more numerous than in the previous year.

Execution of Civil Court Decrees by Revenue Department.

23. The increase of 1,350 in the number of decrees transferred to Collectors for execution was due to the introduction of the system in five districts of the Southern Division. The price realised by the sale of lands in satisfaction of decrees varied from 57 times the revenue demand in Poona to five times the assessment in Bijápur, the average being 23 times the assessment.

Dakhan Agriculturists' Relief Act.

24. The number of suits filed in the Courts specially appointed under the Act showed a considerable increase, which was largest (51·8 per cent.) in the case of agriculturists' suits. There was likewise an increase in the institutions before Village Munsifs and Conciliators. The average duration of contested suits was 146 days and of uncontested suits 124 days. The rates of interest awarded on simple bonds varied from 6 per cent. to 30 per cent., the average rate being from 15 to 24 per cent., while on mortgage bonds interest at 12 per cent. was awarded in 58 per cent. of the cases, the highest rate being 21 per cent.

Registration under Act III of 1877.

25. Registrations of deeds under the Dakhan Agriculturists' Relief Act—especially of deeds between agriculturists and money-lenders showed a considerable decrease, both in number and value.

Registration under Act XVII of 1879.

26. There was a slight decline in the number of registrations, compulsory as well as optional, while the value of documents registered declined by nearly Rs. 1⅕ lákhs. The system of taking thumb prints of illiterate executants was introduced during the year.

Registration under Joint Stock Companies.

27. As in the previous year, Joint Stock enterprise was at a very low ebb. The effects of the collapse of the Gujarát Provident Societies and the recent depression in the mill trade stand out clearly in the number of liquidations and dissolutions. At the end of the year there were only 424 companies with a nominal capital of 2,047 lákhs. In 1899 there were no less than 522 companies registered under the Act. Sixty-one companies with a nominal capital of 85 lákhs, of which 33 lákhs were paid up, ceased to work during the year and 46 that were in liquidation were finally dissolved.

District Boards.

28. In seven districts new Boards were constituted on the expiry of the triennial period. Except where special local or personal influences were at work as was the case in Poona, little enthusiasm was displayed at the elections. In the Dhárwár District as many as 65 per cent. of persons entitled to vote exercised their privilege—but elsewhere the percentage varied between 30 and 40. With the partial return to normal agricultural conditions the incomes of the various Boards showed a slight improvement to 44 lákhs, the bulk of which, *viz.*, 40 lákhs, was absorbed by compulsory educational charges and outlay on civil works. Out of the balance was met the expenditure on medical relief, water-supply and current administration requirements. The closing balances, though increased by 5 lákhs, were still short by 10 lákhs of the amount at which they stood before the financial disorganization caused by famine and plague.

Bombay Municipality.

29. In spite of a decrease in expenditure, the Bombay Municipality closed the year with a deficit of 4½ lákhs; but this deficit did not represent any actual falling off in the principal sources of revenue, but was the result of reduction in the rates of taxation. The capital debt of the Municipality was augmented by 16 lákhs and stood at 460 lákhs at the end of the year. A new system of registration of births and deaths was brought into working order during the year and the control of plague measures was transferred to the Health Department. There was an improvement in the public health, the number of deaths having declined by nearly 20,000. Plague on the other hand was more prevalent than in 1900-1901. The advance in Mahommedan education was well maintained, the number of Urdu schools now standing at 19 as compared with 4 in 1896-97. Koran reading has been introduced into these schools with a view to attracting a larger number of Mahommedan children.

District Municipalities.

30. During the year the new Municipal Act came into operation. Among its immediate effects was the reduction in the number of nominated Councillors. No less important from the administrative point of view were the increased facilities conferred by the Act with a view to accelerate the collection of Municipal taxes and rates. Financially the year saw a considerable development in Municipal revenues, which increased by nearly 7 lákhs of rupees, the bulk of which was contributed by the Sind Municipalities. In spite of an increase of some 4 lákhs in expenditure the closing balances were increased by more than 2½ lákhs, while there was a satisfactory decline in the liabilities to which the various Municipalities stood committed.

Bombay City Improvement Trust.

31. The past year witnessed the practical completion of the Nágpáda Improvement Scheme—the first fruits of the labours of the Board. The experimental chawls for the housing of the poor constructed at Agripáda were completed and given out for occupation. One new scheme, dealing with Mándvi Koliwáda, was notified during the year and a certain amount of progress was made with the schemes sanctioned by Government in the previous year. The Board raised a 4 per cent. loan of 30 lákhs and is now indebted to the general public to the extent of 80 lákhs. The revenue account of the Board closed with a credit balance of Rs. 4,41,258. The actual receipts on account of rents of lands vested in the Board amounted to Rs. 1,19,869.

Marine.

32. With a decline in the number of European sailors shipped at the port of Bombay, there was an increase in the number of seamen who deserted, apparently with the idea of getting to South Africa in the hope of finding more lucrative employment. At Aden, there was a marked increase in the number of European seamen shipped. The demand for native seamen at outports accounts for the increase both at the Aden and Bombay Shipping Offices in the number of native seamen engaged.

33. The material improvement in the trade of the ports of Bombay, Karáchi and Aden was reflected in the financial results of the Port Trusts concerned. The gross receipts of the Bombay Port Trust reached the highest figure on record (55 lákhs), while the revenue of the Karáchi Board more than doubled itself, and at Aden there was an increase of over Rs. 70,000 in the total receipts. The Bombay Port Trust had in reserve a sum of nearly Rs. 16 lákhs invested in securities of a par value of over Rs. 17 lákhs, while the reserve fund of the Karáchi Port Trust, which had been trenched upon in the previous year, was recouped to the extent of Rs. 1½ lákhs. Among the works undertaken by the various Boards were the construction of new sheds at Karáchi and the completion of the dredging scheme of the port of Aden. Port Trusts: Bombay, Karáchi and Aden.

34. In the districts affected by famine the Land Record staff were employed on famine relief. Elsewhere they were engaged in the supervision of the preparation of the Record of Rights. Land Record staff.

35. Notwithstanding an increase of 8 per cent. in the net area cropped, the area under cultivation was still short of that anterior to the famine by a million and a half acres. The increase of the year was chiefly in the Gujarát and Dakhan districts. In Sind, where the exceptional character of the inundation of 1900-1901 had afforded special facilities for cultivation, there was a decrease of 9 per cent., but the area cropped was well up to the average. Among food crops the most noticeable increase was in jowári, while the area under bájri showed a contraction to the extent of 2 lákhs of acres. The area under cotton was well above the average: but that under oil-seeds, though showing an improvement over the previous year's figures, was still only two-thirds of that returned in 1895-96. In Sind the only noticeable increases were in the areas under rice, wheat and cotton, that under jowár having contracted by 32 per cent. The total area irrigated from all sources in the Presidency showed a slight increase, but there was a fall of 4 per cent. in the area in Sind. Crop Areas.

36. Owing to the unfavourable character of the season, the results of the dry crop experiments at the Poona and Surat farms were far from satisfactory. Experiments in cross-fertilisation of wheat and cotton were continued. The Nadiád farm was brought under the control of Government; various experiments in tobacco and bájri from Vizagapatam were undertaken, but the results were vitiated by the special conditions of the year. At Manjri experiments to ascertain the value of sewage as a manure for garden crops were continued. Experiments were also undertaken to test the strength of the rinderpest serum required for local breeds of cattle. Agricultural Experiments.

37. There was a considerable decline amounting to 31 lákhs in the advances both for permanent improvements and for seed and cattle. In the Panch Maháls, Sholápur, Bijápur, Belgaum and Dhárwár, however, loans for seed reached a higher figure than in the previous year. In Sind, except in the Karáchi District, the disbursements under both tagávi Acts were much higher. The total amount advanced in the Presidency and Sind was Rs. 59,99,270. Advances to cultivators.

38. Horse-breeding in the Presidency proper is confined to the Government stud at Ahmednagar and the three paddocks at Rájkot, Vánkáner and Bhávnagar. In Sind the Local Board of Hyderabad also maintained an Arab stallion. In spite of an increase in the number of mares covered by Government horse and pony stallions there was a decrease in the percentage of produce. The annual horse show was held at Ahmednagar: the relatively insignificant decrease in the number of animals exhibited, coupled with the fact that the quality of stock was well up to the average, may be taken to indicate that regular breeders have been but little affected by the famines of recent years. Horse-breeding.

Meteorology.

39. The general features of the Meteorology of the past year were the weakness of the monsoon current in June, its early withdrawal, accompanied by an unusually high temperature, in September, and an unequally distributed rainfall in the interval. On the West Coast the fall was slightly in excess of the normal. In Sind, and in Gujarát, which was practically without rain except for a short space of six weeks in July and August, the fall was from 45 to 70 per cent. in defect. In the Dakhan the unusual number of thunderstorms brought the rainfall to just below the average.

Wages.

40. With a very slight decline in the price of food stuffs there was only a small variation in the rates of wages of skilled and unskilled labour, which practically remained at the level of the previous year.

Forests.

41. Except in Sind, where the action of the river resulted in a net loss of 3,187 acres by erosion, the area under conservancy underwent no change. Working plans were introduced in the East Khándesh Sátpuda and Transpurna forests, in the Poona bábul Forest and in the Hyderabad division, while fuel areas in the Belgaum and Kánara districts were surveyed. The area traversed by fires increased in the Central, Southern and Sind circles. Except in the Surat division, artificial reproduction was considerably hampered by the unusually dry weather; on the other hand the central nursery at Manjri gave satisfactory results. The free-grazing concession which had been granted in 1901 was continued in the Central circle; and free grants of timber were made to the value of Rs. 13,636. There was an appreciable decrease in the number of cattle impounded in all circles except the Northern. In Sind, illicit grazing showed a slight decline. Exclusive of realisations and charges in connection with the famine fodder operations, the financial results of the year showed a surplus of Rs. 6,88,709, the chief feature being the increased sales of timber in the Southern circle.

Manufactures and Industries.

42. There was a very brisk revival in the cotton spinning and weaving industries of the Presidency. Cotton mills increased in number and the outturn of yarn as well as the exports was far greater than in the previous year. The ginning factories on the whole, though not fully employed, had a fair season's work. Hand-weaving, especially in the Sholápur and Bijápur Districts, continued in a low state of depression. The butter-making industry of Gujarát was affected by the prevalence of plague and famine.

Trade: Bombay.

43. The revival in the sea-borne trade of the Presidency, as evidenced by the increase of 15 per cent. in the aggregate total, has already been referred to above. Accompanied as it was by a decline of 7 per cent. in the coasting trade—which represents a falling off in the movement of grain to famine-stricken districts—the increase of 17½ crores in the value of the foreign trade is an indication of the recovery from the depression of the last five years. Simultaneously with a decline of 56 lákhs in the imports of grain and pulse, there was an increase of over 200 lákhs in the imports of yarn and textile fabrics. The largest increase, however, was one of 1,057 lákhs in exports of Indian produce. The exports of Indian cotton manufactures, of seeds and raw cotton touched the highest figures for many years. On the other hand, the small exports of grain, which in spite of an increase of 21 lákhs, are still far lower than they were before the famine, indicate that the recovery of normal conditions is yet far from complete. As in previous years, the bulk of Indian merchandise was destined for China and Japan. There was no arrest in the decline in the export trade of foreign merchandise to the East Coast of Africa and to Western Asia which, before the establishment of direct communication between Europe and these countries, had constituted an important branch of the commerce of Bombay. Transactions in

treasure showed an increase in imports of silver for mint purposes and in exports of coined silver to China, the Straits, Ceylon, East Africa and Arabia. Gold exports and imports showed a decline.

Karáchi. Exclusive of Government stores and treasure, the value of the trade of the port of Karáchi advanced by 72 per cent. As in the case of the port of Bombay the imports of textile fabrics from Europe account for the large increase in imports. Beet sugar from Austria-Hungary consequent on the kartel system improved by 22 lákhs, and has practically displaced local and Mauritius produce. The export trade, though it did not attain the dimensions of 1898-1899, more than doubled itself, the increase being distributed over grain, pulse and rice. The decline in Indian tea was maintained, the quantity exported being only one-eighth of the exports of the previous year. The coasting trade of the Province improved by 28 per cent., while the trade with subordinate ports declined by 20 per cent.

Aden. At Aden there was an expansion both in the import and export trade. The total value of the commerce of the port in all its branches showed an advance of Rs. 285 lákhs, of which Rs. 135 lákhs were contributed by the foreign trade.

Public Works. 44. The total expenditure on public works declined from Rs. 235 lákhs to Rs. 99 lákhs. Of this amount Rs. 34 lákhs were debited to Provincial Revenues and Rs. 11 lákhs to Local Funds, the rest being Imperial charges. The bulk of the latter expenditure (Rs. 48 lákhs) was in connection with famine relief, only Rs. 6 lákhs being incurred on Military and Civil Imperial works. Under Famine Relief works nearly Rs. 24 lákhs were expended on Irrigation works and Rs. 15 lákhs on Communications. Famine labour was also employed, though to a less extent than in the previous year, on Railway works, such as the Godhra-Baroda Chord and the Sábarmati-Ahmedábád-Dholka Railways, the earth-work of the latter being completed during the year. Under Provincial works the bulk of the expenditure (Rs. 24 lákhs) was incurred on Civil Buildings and Communications.

Irrigation. 45. The entire outlay on Irrigation Works other than those carried out for Famine Relief amounted, as in the previous year, to 54 lákhs. This expenditure was divided between Sind and the Presidency proper in the proportion of 7 to 2.

In the Presidency proper the principal canal works in progress were the Nira, the Mutha, the Yerla Right Bank and the Gokák Canals. The operations on the Mhaswad and Ashti Tanks were pushed forward. In Gujarát a special survey was undertaken with a view to constructing new irrigation tanks and to improving existing ones. The total area irrigated from the Dakhan and Gujarát works for which Capital and Revenue Accounts are kept was 128,171 acres against 124,972 acres in the previous year. The gross revenue amounted to Rs. 8,22,769 as against Rs. 6,70,788 in 1900-1901.

In Sind the inundation, though it did not compare favourably with that of the previous year, was quite up to the average. The principal original works in progress during the year included the construction of the Uch and Manuti Rajwahs, 29 and 9 miles in length respectively, the opening of the Mahiwah and the extension and improvement of the Jamráo, Dád and Nasrat Canals. The capital outlay on the Jámráo Canal was 4½ lákhs; the area irrigated from it improved by 60,000 acres to 223,000, the revenue being estimated at Rs. 6½ lákhs. The area irrigated by all classes of works in the Province was 2,586,366 acres against 3,043,857 acres of the previous year. The gross assessed revenue amounted to Rs. 60,81,616, of which Rs. 2,55,118 were on account of direct and

Rs. 58,26,498 on account of indirect receipts, the corresponding figures for the previous year being Rs. 2,92,284 and Rs. 66,26,079 respectively.

Railways. 46. With the opening of the Petlád-Cambay branch of the B. B. & C. I. Railway the mileage under the control of the Bombay Government was increased to 7,716 miles. In addition there were 262 miles under construction. The most serious accident was a collision on the Indian Midland Railway in which two passengers were injured. The most important gross earnings were on the G. I. P. Railway (416 lákhs), the B. B. & C. I. Railway (159 lákhs) and the Rájputána-Málwa Railway (278 lákhs). The proportion of expenses to gross earnings was lowest on the Nágda-Ujjain Railway (40 per cent.).

Finance: General. 47. The gross Imperial, Provincial and Local receipts amounted to Rs. 14,81,58,003 as compared with Rs. 17,00,81,941 in 1900-1901. The expenditure also declined from Rs. 12,73,92,417 in 1900-1901 to Rs. 7,90,26,471. The surplus amounted to Rs. 6,91,31,532.

Imperial. Imperial receipts declined from Rs. 11,27,22,630 to Rs. 8,46,12,002. The chief fluctuations were a decline of 276 lákhs in receipts of the Mint which in the previous year had realised nearly 3½ crores from the coinage of silver, a decrease of nearly 44 lákhs in receipts from opium sales, and a decline of 2 lákhs in forest receipts. Against these must be set an increase of 3½ lákhs in Land Revenue, of 49½ lákhs from Custom receipts, and of 3 lákhs under Excise. The expenditure on account of Imperial charges was Rs. 1,55,25,697, a decline of Rs. 3,14,93,548 on the previous year's figures, of which the bulk (281 lákhs) was merely nominal, being incurred on operations connected with the coinage of silver referred to above. Famine relief charges were less by 61 lákhs and Forest expenditure diminished by 3½ lákhs.

Provincial. There was no opening balance to the credit of Provincial Revenues, which increased by Rs. 63 lákhs to Rs. 5,15,12,942. The improvement was general, but was chiefly noticeable in receipts under Land Revenue (61 lákhs), Stamps (2 lákhs) and Excise (10 lákhs). The most important decreases were under Forest (29 lákhs) and Local Funds Contributions (1½ lákhs). The total expenditure was Rs. 4,56,76,239 against Rs. 4,52,20,304 in the previous year. The main decreases were under Assignments and Compensation (12 lákhs), Forest (3½ lákhs) and Medical (12 lákhs), against which must be set increases in Education and under Miscellaneous charges. The closing balance was Rs. 58,36,703.

Mint. 48. The value of gold bullion and coin tendered by the public in exchange for silver fell by 200 lákhs. 130 lákhs of silver coins from Kotah, Jhálávád and Cambay were received for re-coinage into British Indian rupees, while the Exchange Banks tendered 64 lákhs of silver bullion for coinage into British dollars. Rupees to the value of Rs. 335 lákhs and small coin to the value of Rs. 2 lákhs were coined during the year, as also more than 25½ millions of British dollars on behalf of silver tenderers.

Currency: Presidency Circle. 49. The feature of the year's operations was the disappearance of the abnormal demand for notes of high denominations, accompanied by a brisker circulation of the smaller value notes. The net result was a fall of 3 lákhs in value of notes in circulation. Issues and receipts of sovereigns and half-sovereigns showed a considerable decline. The receipts and issues of small silver coins returned to their usual level, the receipts showing a considerable decline from the figures of the previous year, when an abnormal number of silver coins were returned from the famine districts.

Karáchi Circle. There was a large increase of 86 lákhs in the value of foreign notes in circulation, due to the revival of trade in all its branches.

50. The Land Revenue demand for 1901-1902 was Rs. 3,90,54,494. The collections, including arrears of previous years, improved by Rs. 1,42,76,128 to Rs. 487,74,894. The improvement was shared by all districts and coercive measures were only required in 842 cases. Land Revenue.

51. Simultaneously with an increase of Rs. 27 lákhs in the net Imperial receipts from import duties there was a decline in Provincial receipts. Drawbacks show a considerable decrease, mainly owing to smaller exports of silver bullion to China, of tea to Persia and of petroleum to Goa. There was a substantial increase in bonding transactions, especially of sugar and kerosine oil. The expenditure of the Department was practically stationary. Sea-Customs:

At Karáchi the Imperial revenue from Customs increased by Rs. 15 lákhs, principally owing to the importation of large quantities of low priced beet sugar. Karáchi.

52. A large decline in the imports of betelnuts and cocoanuts, slightly only counterbalanced by an increase in the export of rice, brought about a decrease of Rs. 7,000 in the receipts under Land Customs. A feature of the year was the revival of trade *viá* Castle Rock. Land Customs.

53. Diminished exports consequent on the belief that the Malwa crop was shorter, together with a contraction in the home demand, resulted in a decrease of Rs. 15½ lákhs in the not Imperial revenue derived from Opium. Remissions allowed to Native Chiefs entitled to duty-free opium amounted to Rs. 80,047. Prices showed inconsiderable variations from those of the previous year. Preventive establishments were maintained along the railway lines and in the interior, the charges being met from contributions from the opium farmers. Opium.

54. A large increase in the issues of sea-salt, only slightly counterbalanced by a decline in the manufacture of Baragra salt and in imports of salt from outside the Presidency, brought the total issues of salt from all sources to 9,842,775 maunds, an increase of 469,639 maunds on last year's figures. The average consumption per head declined to 10·71 lbs., and the average price ranged from Rs. 4-2-5 in Bombay City to Rs. 2-15-5 in Ahmedabad. The revenue showed a decrease of Rs. 73,595, while the expenditure increased by Rs. 28,746. Offences against the Salt law were less numerous than in 1900-1901, and were chiefly confined to clandestine removal of salt in the Northern Division. Smuggling of salt was on the decline. Salt: Presidency.

Both the production at the salt works and sales of salt in Sind showed an increase during the year, the total quantity consumed in the Province improving from 273,307 maunds to 278,337 maunds. There was a slight fall in the wholesale price, while the average rate of consumption per head showed an increase. Sind.

The quantity of salt manufactured at Aden decreased by 1,050 maunds; but there was an increase in exports from the Italian salt works at Sheikh Othman. Aden.

55. Consequent on the passing of Act V of 1901, amending the Bombay Abkári Act, a number of changes were introduced in the system of manufacture and sale of intoxicating drugs. The effect was a considerable decline in the sale of these articles. On the other hand there was an increase in the consumption of country spirit, chiefly in Bombay City and in the Thána, Poona, Khándesh and Dhárwár Districts. The sales of country spirit, such as rum and locally brewed beer, which are subject to duty at tariff rates, also improved by 223,000 gallons. The receipts of the Department showed an increase of over Rs. 8 lákhs, of which more than one-half was contributed by the still-head duty Excise: Presidency proper.

on country spirit. The incidence of taxation (9 annas per head of population) was sligtly higher than in the previous year.

Sind. In Sind the revenue showed an increase of over Rs. 50,000, owing to larger receipts from still-head duty on country spirits. The incidence of taxation per head of population rose from Re. 0-5-8 to Re. 0-6-4.

Aden. Larger realizations of the import duty on liquor caused a slight improvement of nearly Rs. 9,000 in the receipts at Aden.

Cotton Duties. 56. Consequent on a better crop, and an increased demand in the home and foreign markets, the outturn of yarn improved by over 171 millions of pounds and the exports by nearly 2½ millions. This improvement was accompanied by an increase of nearly 5 lákhs in the revenue from textile production.

Stamps. 57. The gross receipts reached the highest figures on record (Rs. 62,73,987). The improvement was specially noticeable in the revenue under the Court Fees Act which had been on the decline since 1899.

Income Tax. 58. Owing to the absence of the special causes which were in operation in 1900-1901, the Income Tax demand declined considerably to Rs. 33,14,567 and the collections to Rs. 32,57,606. The bulk of the arrears occurred in the Northern and Central Divisions.

Local Funds. 59. Apart from District Local Funds and Municipal Funds, dealt with elsewhere, there was a decrease of over 28 lákhs in the receipts of Excluded Local Funds, and of 27 lákhs in their expenditure. The decrease is due to the absence of the special loan adjustments which were made on account of famine relief to petty tálukdárs and Native States in Gujarát. The principal fluctuations were a decrease in the Cantonment Funds, principally due to the expenditure of the Ahmednagar, Belgaum and Poona Cantonments, an increase in the Mounted Police Funds and the Port and Marine Funds. A large number of Educational, Medical and Charitable Funds were transferred to private trustees. Of the Incorporated Local Funds increases were shown by the Sind Officers' Village Cess, the Government Central Book Depôt Fund and the Steam Boiler Inspection Funds.

Births and deaths. 60. Among the European population the birth-rate fell slightly, while the death-rate showed an increase from 13 per mille to 20. Among the Eurasian population there was an increase in the birth-rate accompanied by a decrease in the death-rate. The recorded birth-rate among the Native population was 25 per mille, the lowest in the decennium, the number of births registered in 1901 being nearly 220, or less than in 1891. The death-rate (37 per mille) though nearly a half of that for the preceding year, was yet above the decennial mean of 35 per mille. The mortality was highest among Hindus. Among causes of death there was a perceptible decline in fevers, cholera, dysentery and diarrhœa, but the mortality from plague, which had in 1900 declined to 1·76 per mille, increased considerably to 6·94.

Emigration. 61. The prohibition on emigration from Bombay was maintained, while with the completion of the Uganda Railway emigration from Karáchi came to a standstill.

Medical Relief. 62. The number of institutions, private and State, as well as of patients show a considerable increase. Excepting in Gujarát the attendance at hospitals seems to have returned to the normal. The death-rate at the State and aided institutions declined to 10 per mille. Admissions for cholera, dysentery and diarrhœa, especially in Gujarát, fell considerably. On the other hand admissions for

affections of the eye and ear, intestinal worms and respiratory diseases increased. The mortality from surgical operations was slightly lower than in the previous year. The total income fell by Rs. 30,000, while the charges showed inappreciable variation.

Lunatic Asylums.

63. The daily average population of the six Lunatic Asylums was slightly lower than in the previous year. The health of the inmates was satisfactory and the number of deaths declined by nearly one-half. There was only a slight variation in the number of cases of insanity caused by excessive indulgence in narcotics and intoxicating liquors.

Sanitation.

64. There was a decrease in the expenditure incurred by the Municipality of Bombay and by the District Municipalities on sanitation. Conservancy charges were higher in Sind owing to the special expenditure at Karáchi and Umarkot. The Municipalities of the Northern Division were compelled in view of the conditions of the year, to incur a greater outlay on water-supply. No important drainage works were undertaken during the year, nor was any progress possible in the introduction of the Village Sanitation Act.

Vaccination.

65. The decrease in the number of vaccinations which set in in 1900 was continued in 1901, and amounted to over 20 per cent. Primary vaccinations showed practically the same percentage of success as in the previous year, but revaccinations exhibited a slight decline. In spite of a decrease in expenditure the average cost per each successful case remained practically stationary.

Veterinary.

66. There was a satisfactory decline in the mortality due to cattle disease which fell by nearly one-half. Except a few sporadic cases of rinderpest in the Poona and Násik Districts, the year was practically free from disease. Instruction in inoculation against the disease was imparted to all Veterinary Assistants. There was a decline in the number of animals treated at the dispensaries and in the percentage of cures which fell to 87. Six cases of glanders were detected in Bombay City.

Education.

67. Excluding the private schools—some of which are purely Koran schools, while in others the statistical returns are hardly trustworthy—there was a slight decline both in the number of, and attendance at, the public educational institutions. The decline is entirely confined to Primary Education for boys, which in the past year touched the lowest level of the decennium, the number of pupils being 437,143 as against 455,129 in 1891. Simultaneously with this decrease there has been a steady advance in the number of Primary Schools for girls, which now stands at 768 with an attendance of 76,568—an increase of nearly 100 schools since 1891. Collegiate and Secondary Education continued on the upward grade and do not appear to have been affected in any way by the adverse conditions of the last five years. Similarly there has been a marked advance in technical institutions, of which, excluding training schools, there were in 1901 thirty-five with an attendance of 3,179 pupils as against 32 with 2,222 pupils in 1891. Of Training Schools for masters and mistresses there were 17 with an attendance of 848. Night schools, on the other hand, in 1901 numbered 107—less than half of what they were in 1891. The revival of Mahommedan education, which received a stimulus in the Educational Conferences held in Surat in 1901 and in Bombay and Hyderabad in 1902, is evidenced by the increase since 1891 of 15,417 in the number of Mahommedan pupils. Two important changes were introduced in Sind: the registration of Koran Schools, which combine the reading of the Koran with an adequate secular instruction in Arabic-Sindhi, and the establishment of boarding houses for sons of Zamindárs at Karáchi, Lárkhána and Mirpur Khas. As regards backward

classes and aboriginal tribes, the greatest improvement was shown in the Central Division, there being now as many as 160 members of these classes in the Nagar Industrial School alone. The past year also witnessed an improvement in the education of these classes in the Northern Division, but in most of the Gujarát States, progress was considerably retarded by famine. The growing necessity for accommodation for boarders especially, as remarked above, in Sind is apparent in the large number of hostels maintained by private funds, some of these aided by Government grants, in addition to the eleven Government boarding houses. Increased attention was paid to physical training in elementary as well as secondary Schools.

Literature.

68. Neither in quantity nor in quality was there any material variation in the literature of the year. Gujaráti and Maráthi publications outnumbered those in Kánarese and Sindhi. In the majority of the publications, poetry and religion formed the subject-matter.

Native Press.

69. There was a slight decrease in the number of native newspapers in circulation at the end of 1901. The death of the Queen-Empress was fully noticed in the columns of the Native Press. Among local affairs attention was mainly directed to the Land Revenue Amendment Act which was received with the most bitter criticism. The appointment of the Famine, Irrigation and Education Commissions were warmly welcomed, but, save in the case of the last named, exception was taken to the personnel as not sufficiently representative of the native element. Sir Edward Law's financial statement, as also Lord George Hamilton's Budget speech, were vigorously assailed as "extravagantly optimistic."

Archæology.

70. No work of importance beyond the repair and conservation of archæological monuments in Ahmedabad and Bijápur was undertaken during the year.

Ecclesiastical.

71. The strength of the permanent establishment of the Church of England underwent no change. The establishment of the Church of Scotland was reduced by four officiating Chaplains.

Stationery.

72. The total value of stock, after deducting issues, and including additions, increased by Rs. 12,076. The substitution of Indian for English stores resulted in a gain of Rs. 25,376.

Government Central Press.

73. The net earnings at the Government Central Press, Bombay, were Rs. 1,33,572, and at the Karáchi Printing Press Rs. 17,411, the latter being the highest on record. The Photozincographic Office realised a profit of Rs. 33,039 on the year's outturn.

PART II.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

Area, Aspect, Climate, Products.

INTRODUCTION.

1. THE Bombay Presidency has geographical unity only in the sense that it comprises the whole western coast of India from the borders of Baluchistan to the frontier of the Madras Presidency. It extends from 13° 53′ to 28° 45′ North latitude and from 66° 40′ to 76° 30′ East longitude. Within these limits lie the Portuguese settlements of Diu, Daman and Goa (area 1,287 square miles); the State of Baroda (area 8,087 square miles and population 1,952,692), which has direct relations with the Government of India; the Native States which have relations with the Bombay Government (area 65,761 square miles and population 6,908,648); and an area of 122,934 square miles with a population of 18,515,537, which is divided into four commissionerships and 25 districts (including the City of Bombay). Of the four administrative divisions of the Presidency, Sind alone is geographically one. The other natural divisions are the island of Cutch; the peninsula of Káthiáwár; the great plain of Gujarát between the mouth of the Luni and the western outliers of the Sátpuras; the valley of the Tápti (Surat and Khándesh); the tableland of the Dakhan east of the chain of the Ghâts; and the Konkan or coast strip between the Ghâts and the sea. The coast line is deeply indented by the Gulfs of Cutch and Cambay, and broken by many bays and creeks; but the only harbours that are safe during the S. W. monsoon are those of Karáchi, Bombay, Marmagoa and Kárwár.

SIND.

2. **Sind**, or the lower valley of the Indus, is the most northerly section of the Presidency, lying between 23° and 28° 40′ North latitude and 66° 50′ and 71° East longitude, and having an area of about 53,000 square miles and a population of 3,410,223. It includes the six districts of Karáchi, Hyderábád, Thar and Párkar, Lárkhána, Sukkur and Upper Sind Frontier, and the Native State of Khairpur (area 6,050 square miles and population 199,313). It differs widely in physical features and climate no less than in the language, dress and customs of the people, from the rest of the Presidency, from which it is cut off by the deserts or the sea. Sind proper, or the central alluvial plain watered by the Indus, lies between the Kohistan or hilly country that rises to the Kirthar range (7,200 feet) on the Baluchistan border and the Registan or Thar desert that stretches eastward into Rajputána. The Kohistan in years of good rainfall yields abundant fodder for cattle and camels and supports a scanty tillage on the banks of the hill streams or *nais*, one of which (the Hab) forms the boundary between Sind and Baluchistan. Central Sind lies on both banks of the Indus, which flows southwards with many windings in a bed which is raised by the deposit of silt above the surrounding country. Except where its bed is confined by rocks, as at Sukkur, Rohri and along the edge of the Kohistan from Lakhi to Jhirak, the river constantly changes its course, especially in the Delta, the head of which is now opposite Shâhbandar. Central Sind depends on the yearly inundation of the Indus, which begins to rise in March and reaches its highest point about the middle of August. The water is distributed by a very ancient system of canals, which has been greatly improved and added to since the English conquest. The soil is a plastic clay deposited by the river. In the Registan on the east of the Indus rolling sand hills alternate with wooded valleys or stretches of level pasture land.

The climate of Sind is extratropical. The average temperature is 60° F. in the cold season and 95° F. in the hot months (April—September), but the minimum is as low as 28°F. and the maximum as high as 120° F. The rainfall is scanty and irregular.

The salt of the Delta is the only mineral product of commercial importance. Timber and fuel are supplied chiefly by the *bábul* (Acacia arabica), *bâhan* (Populus euphratica), *kandi* (Prosopis spicigera) and iron wood (Tecoma undulata), and fruit by the date, mango and pomegranate. The chief *rabi* or spring crops, sown from August to October and reaped from February to April, are wheat, barley, gram, mustard, garlic, onions and hemp. The leading winter or *kharif* crops, sown from May to July and reaped from October to December, are the millets (*bájri* and *juár*), rice, *urad* (Phaseolus radiatus), *mung* (Phaseolus mungo), sesamum and cotton.

One-humped camels, buffaloes, fat-tailed sheep, horses, mules and asses are bred in large numbers. Leopards, black bear and ibex are found on the hills, and in the cold weather the pools are covered with water-fowl. Of sea-fish the sardine and of river-fish the *pála* are the most important. The long-nosed alligator is found in the Indus, and venomous snakes are common.

CUTCH.

3. **Cutch**, lying between 20° 47′ and 24° North latitude and 68° 26′ and 71° 10′ East longitude, is an island cut off from the mainland by the great salt waste known as the Ran, a tract of over 9,000 square miles which is flooded by the sea from June to September.

CUTCH. Cutch itself has an area of 7,600 square miles and a population of 488,022, and forms a separate Native State. Its low-lying southern shore rises gradually about 1,000 feet to a chain of bare volcanic hills that run in a half-circle from west to east. Its scanty rainfall, averaging about 10 inches, is brought by the N. E. monsoon, and feeds for a few months only the water-courses that rise in the central hills. Coal and iron are found, but not worked. Trees except the date are few. The spring crops are wheat, barley, gram and rapeseed, and the winter crops are millet, pulse and cotton. The local breeds of horses and camels are famous, and herds of the wild ass (Equus onagar) are found on the Ran.

KÁTHIÁWÁR. 4. **Ka'thia'wa'r** is a peninsula lying between 20° 40′ and 23° 45′ North latitude and 69° 5′ and 72° 20′ East longitude, and has an area of about 23,000 square miles and a population of about 2½ millions. It includes the Portuguese settlement of Diu (7 square miles), the Amreli and Okhamandal divisions of Baroda (about 1,320 square miles), and the Dhandhuka Táluka and Gogha Petha of the British district of Ahmedabad (about 1,300 square miles). The rest of the province is divided into fourteen large States and very numerous smaller ones, under the supervision of the Agent to His Excellency the Governor. It is connected with the mainland of Gujarát by a neck of low-lying land, which down to quite recent times (1813) was flooded during part of the year, and is still partly covered by a large lagoon, the Nal. The coast, except in the south-east, is low and sandy or covered with mangrove bushes. Ports and landing places are numerous, but none are safe during the monsoon. The country rises gradually to a central tableland (700 feet) where all the rivers take their rise, and which is bounded on the north by sandstone hills running from Barda in the west to near Than in the east. To the south of the central block a number of volcanic peaks, of which Girnar (3,666 feet) is the chief, form an arc reaching from near Dhoraji through the Gir forest to near Sihor. South of these hills and in the valleys of the Bhadar and Satrunji rivers, which are the largest in the province, lie the richest lands. On the north-east of the central tableland a rolling plain on which wheat is grown stretches down to the Ran and the Nal. Cotton is grown on the lands in the north between the hills and the Ran, while the north-west is sandy and barren.

The only important mineral products are salt and the building stone of Porbandar.

Though many of the hills, especially the Gir range, are wooded, they produce no valuable timber. Mango, cocoanut and wild date trees are common. The chief spring crops are wheat and cotton, and the winter crops *bájri*, rice and tobacco. *Juár* and sesamum are grown in both seasons, and sugarcane is sown in February or March and reaped after a year. Horses are bred in the central tableland, asses in the north, milch cattle and buffaloes in the Gir, and camels in the north-east. The famous Gujarát lion is still found in the *Gir*, and *Sambar* and *Chital* are met with on the hills. *Nilgai*, blackbuck and *chimkara*, as well as ground game, and water-fowl, are common. Of sea-fish the pomphret, sole and whitebait are the best known.

GUJARÁT. 5. **Gujara't**, by which is here meant the central plain, lies between 24° 41′ and 21° 25′ 45″ North latitude, and 71° 16′ and 74° 10′ East longitude, and has an area of about 29,071 square miles and a population of 4,758,504. Of this area less than one-fourth (7,168 square miles), lying chiefly in the centre and south, is British territory belonging to the four districts of Ahmedabad, Kaira, Panch Mahals and Broach. About 4,902 square miles, chiefly in two blocks, one lying west of the Sábarmati and the other between the Mahi and the Narbada, belong to Baroda. The remainder belongs to the large and small States that have relations with the Bombay Government and are distributed among the Agencies of Pálanpur in the north, Mahi Kántha in the north-east, Rewa Kántha in the east, and Cambay at the mouth of the Sábarmati.

The plain is bounded on the north by the desert of Márwár, and on the east by the ranges of granite hills that run south-east from Abu to join the western outliers of the Vindhyas near Pavagad. From these hills, in the neighbourhood of which the country is rough, rocky and well wooded, it slopes in a south-westerly direction towards the Ran, the Nal and the sea, unbroken by any rocky outcrop or rising ground. The central region, though the rainfall is light, has naturally one of the richest soils in India, though parts of it are liable to floods in the rains and it has suffered much in the recent famine. Towards the Ran, the Nal and the sea-coast the plain passes into salt or sandy waste, where the sub-soil water is brackish and lies deep below the surface. The grazing lands of Pálanpur in the north are watered by the Banas and the Sarasvati, which flow from the Aravalli mountains into the Little Ran. The Sábarmati, rising near the source of the Banas, gathers up the waters of the Mahi Kántha through a number of tributaries on its left bank, and runs through the rich lands of North Baroda, Ahmedabad and Kaira into the Gulf of Cambay. Further east, the Mahi, rising far away in Málwa, breaks through the Dungarpur hills near Kadana and flows through the fertile fields of Kaira and Central Baroda between high earthen banks into the same gulf, which finally receives also the waters of the mighty Narbada, the lower course of which passes between Central Baroda and Rájpipla and through the British district of Broach. The rainfall varies from 38 inches in the east to 30 inches in the centre.

The quarries of I'dar and Ahmednagar yield good building stone, and iron and lead are found in the Panch Mahals, but the central and coast tracts are stoneless. Good salt is made in large quantities at the Government works at Khárághoda on the edge of the Ran.

The eastern hills are covered with *khákra* (Butea frondosa), teak (Tectona grandis), *nîm* (Melia azadirachta) and *bámbu*, and blackwood (Dalbergia latifolia) is found in Pálanpur. The

chief field trees throughout Gujarát are the *wahuda* (Bassia latifolia), mango (Mangifera indica), and *ráyan* (Mimusops indica).

The staple food-grains are wheat, *bájri* and rice, the first being most important in the north, and the second being less grown than *juár* in Broach. Maize is the staple food-grain in the Panch Maháls. Cotton is grown almost everywhere, but is specially characteristic of Broach. Gram and sesamum also are grown everywhere and tobacco is important in Kaira.

The oxen of Kákrej, Daskroi and Nadiád are famous. Horses are bred in Ahmedabad and Kaira, and camels more or less everywhere north of the Máhi, though many of those met with are brought in to graze from Mevád and Málwa. The spread of cultivation has driven the tiger, panther and bear into the eastern hills and greatly reduced the numbers of the wild hog; but deer, especially blackbuck and *nilgai*, are still common. Game birds, both by land and water, are abundant. The *maral* is the chief river fish.

6. **The Tapti Valley**, which geographically includes the coast tract from the Kím to the Dámanganga river, and the inland country between the Sátpura and the Sátmála hills, lies between 20° 15′ and 22° 7′ North latitude, and 72° 38′ and 76° 28′ East longitude, and has an area of 18,975 square miles and a population of 2,823,646. It includes the British district of Surat on the coast, with the small State of Sachin, a strip of land on the west of the Ghát divided between the States of Baroda, Bánsda, Dharampur, the Dángs and Surgána, the British districts of Khándesh and Násik (part) and the Portuguese settlement of Daman (182 square miles). Besides the Sátpurás to the north and the Sátmálás to the south, the great range of the Sahyádris or Western Ghát, beginning south of the Tápti about 60 miles from the sea, runs in a south-westerly direction towards Peint, throwing out spurs to the east between the rich river bottoms, and foot-hills on the west nearly to the sea. To the east no natural barrier separates Khándesh from Nimár and Berár. At the foot of the wooded hills of traps and basalt the soil is thin and poor, but nearer the rivers it is a rich alluvium. Until the Tápti Valley Railway was opened the rich lands of Surat and Khándesh were separated by the wild and wooded belt of Native State territory that lies on the western face of the Ghát and stretches northwards across the Tápti. THE TÁPTI VALLEY.

The Tápti, rising in Betul, enters Khándesh from the north-east, and after receiving the waters of the Purna from Berár, follows a generally westerly course along the foot of the Sátpurás to the sea. Its other tributaries, of which the Girna is the most important, mostly take their rise in the Sahyádris.

The rainfall is heavy on the hills and in the forest belt, but varies in the open country from 47 inches at Surat to 26 inches at Dhulia. In the coast tract the temperature is equable, but inland it ranges between 52° in the cold weather and 106° in the hot months. There are no mineral products of commercial importance. The forests of *anjan* (Hardwickia binata), *khair* (Acacia catechu), *bábhul* (Acacia arabica) and teak (Tectona grandis) are very extensive and valuable in Khándesh. The chief field trees are the wild date and the mango in the coast tract and the *vad* (Ficus indica), *nim* (Azadirachta indica) and tamarind (Tamarindus indica) inland.

Cotton is by far the most important crop in the Tápti Valley. The chief food crop on the coast is rice and inland *bájri*. *Juár* and wheat also are very generally grown. Castor-oil seed (Ricinus communis) is common on the coast and sesamum in Khándesh.

Among domestic animals the little *Genia* bullocks of Surat are valued for driving, and the Patiri goats of Bulsár for their milk.

The tiger, panther and black bear are found in the hills, and the bison ((Gavæus gaurus) and *sámbar* are sometimes met with in the wilder parts of Khándesh. *Bhekri*, *nilgai* and *chinkára* are also found inland and blackbuck more or less everywhere. Of game birds the wild duck, snipe, quail and partridge are found, but not in such numbers as in Gujarát.

7. **The Dakhan** section of the Presidency lies between 14° 17′ and 20° 8′ North latitude and 73° 24′ and 76° 15′ East longitude, and has an area of 45,575 square miles and a population of 8,676,091, of which 9,761 square miles and 1,952,161 persons belong to Native States. It includes the western part of the basins of the Godávari and the Krishna river systems, the watershed of which runs eastward from Harischandragad to near Ahmednagar and then widens in a south-westerly direction into the Bálághát of Bhir and Bidar. Nowhere is the eastern boundary of the British districts marked by any more formidable barrier than a river-bed; and north of the Godávari, and again between the Bhima and the Tungabhudra, there is no natural frontier at all. Along the western edge of the Dakhan from north to south run the trap and basalt hills of the Sahyádri range, which has a general level of from 3,000 to 4,000 feet, and one peak (Kalsubai) as high as 5,400 feet. From the main mass of the Ghát many flat-topped spurs run out eastwards into the plain and part the valleys of the many streams that eventually find their way to the Godávari or the Krishna. The rough and rocky region of the west passes gradually into the broad flat black-soil plain of the *Desh* or Central Deccan, which stretches eastwards far into the Nizám's territory, with hardly a break except the bare flat rocky lands of Atpadi, Sángola and Jat to the east and north of the Krishna. Of the river systems of the Bombay Dakhan, that of the Godávari is much the smaller. The river rises at Trimbak in the Sahyádris and flows in an easterly and slightly southerly direction through Násik and along the northern border of Ahmednagar. Near Nevása it receives the combined streams of the Pravara THE DAKHAN.

and the Mulá rivers, which rise in the hills of Akola. The Krishna system spreads fanwise over an enormous area from Junnar in the north to Mysore in the south and is divisible into three minor groups which do not unite until they have left the limits of the Presidency. These are (1) the Bhima, which rises in the hills north of Poona, and flows south-eastwards, receiving on the left bank the Ghodnadi of Junnar and the Sina of Ahmednagar, and on the right bank the Mútámúla of Poona and the Nira of Bhor: (2) the Krishna itself, which rises at Mahábaleshvar, and flows southwards as far as Dalvad, gathering on the way the waters of many hill streams, and thence turns eastward and flows through the Belgaum and Bijápur Districts, receiving on the right bank, in the latter district, the waters of the Ghatprabha and Malprabha from the hills of Belgaum, and on the left bank in the Nizám's country the Don which waters the garden lands of Bijápur: and (3) the Tungabhadra, which rises in Mysore and forms the boundary between Dhárwár district and Mysore and Bellari.

The rainfall of the Dakhan varies from about 125 inches on the Sahyádris to about 26 inches in the eastern plains. In the south-west the monsoon is very regular and is preceded by heavy showers in April and May. In the east the rainfall is somewhat irregular and precarious. In the north the cold weather is dry and bracing, but in the south though cool it is somewhat damp. Throughout the Dakhan the trappean and basaltic rocks yield good building stone, and iron is abundant though not profitably workable. Sandstone is found in the south-east, where also gold and manganese occur. The forest lands of the Dakhan lie chiefly on or near the Sahyádris, though the higher peaks are for the most part bare. By far the most important are the teak forests of inland Kánara. The chief forest trees are teak and bámbus in the north, teak, blackwood, *jámbul, ain, nána, hirda* and again bámbus in the south. The eastern plains are all but treeless, save for a little *bábul* or *khair* scrub. The mango is everywhere grown for its fruit and the wild date for its juice. The jack and the *káju* tree are specially characteristic of the south. In the Godávari Valley the characteristic crops are bájri and wheat and in the west *nágli* (eleusine corocana). In the Central Dakhan *bájri* and *juári* occupy about two-thirds of the cultivated area in fairly equal shares. In the south, *juári* is by far the most important crop: next to it comes cotton, then *bájri* and then wheat. Throughout the Dakhan rice is grown wherever the rainfall is heavy, and tur, gram, sesamum and linseed, where it is light. Sugar-cane is important in Sátára and tobacco in Belgaum.

Horses and ponies are still bred in the Northern Dakhan, but all the best cattle are imported from other parts of India. Of wild animals, the tiger, the bear and the *sámbar* are found in the Sahyádris, but are rare, except in the far south. The panther is commoner. In the eastern plains the blackbuck and wild hog are common. Game birds are far less common than in Gujarát.

The Political Divisions of the Dakhan are, from north to south, the British districts of Násik (part), Ahmednagar, Poona, Sátára, Belgaum, Kánara (part), Bijápur and Dhárwár: the small States of Bhor and Phaltan between Poona and Sátára: the States of the Kolhápur Agency, with Aundh and Jat, between Sátára and Sholápur on the one hand and Belgaum and Bijápur on the other: the Akalkot State, between Sholápur and the Nizam's territory: and Sávanur with some detached portions of States of the Kolhápur Agency, in the east of Dhárwár.

8. **The Konkan**, or coast belt between the Ghats and the sea, lies between 13° 55′ and 20° 4′ North latitude, and 72° 45′ and 75° 10′ East longitude, has an area of 13,788 square miles and a population of nearly 4½ millions, of whom 776,000 live in the City of Bombay. Of this area about 1,200 square miles belong to the Portuguese Settlement of Goa, 1,560 square miles to the Native States of Jawhár, Janjira and Sávantvádi, and the remainder to the four British districts of Thána, Kolába, Ratnágiri and Kánara, and to the City of Bombay. The coast line of over 400 miles is broken by innumerable river-mouths, tidal creeks, inlets and bays, of which the most important are Bombay harbour and the harbours of Vijaydrug, Marmagoa and Kárwár. The Dakhan trap forms a high tableland (1,500 feet) in North-East Thána and passes southwards through a series of hill ranges into the bare flat laterite plateaux of Ratnágiri. The granite and sandstone hills of Kánara are locally reckoned as distinct from the Sahyádri range, and the enormous proportion of forest in the district distinguishes it from the rest of the Konkan. The latter in the east at the foot of the Ghats is well-watered and fairly wooded, but further west the streams run in deep channels between stony and barren uplands until they reach the flat rice fields and rich villages of the coast. In Kánara tillage is confined to narrow strips along the water's edge.

The rivers of the Konkan are numerous, but none are of any size. The climate is so tempered by the sea-breeze that extremes of heat and cold are unknown. The average rainfall, which in the north is about 100 inches, gradually increases as we go southwards to about 130 inches.

The trap and laterite hills yield good building stone and road metal, and salt is made from sea-water at many places along the coast.

The inland parts of Thána and Kolába, and the greater part of Kánara, are covered with forest, but in Ratnágiri trees are scarce. The chief forest trees are teak, blackwood, *ain* (Terminalia tomentosa), *khair* (Acacia catechu), *hirdá* (Terminalia chebula), and *bámbu*. In the coast tract the characteristic tree is everywhere the cocoa palm. The jack, the mango, and in the south the *káju* are grown for their fruit, and the palmyra (Borassus flabelliformis), the wild date, and the mhowra (Bassia latifolia) for the liquor which they yield.

The poorer Konkan soils require frequent fallows, hence the area tilled in any one year is relatively small. Rice is by far the most important crop everywhere. In the north and centre *harik* (Paspalum scrobiculatum) and *náchni* (Eleusine corocana), and in Kánara garden produce and spices are largely grown. There are no good breeds of domestic animals, and neither horses nor sheep thrive in the Konkan. Of wild animals the tiger, black bear and *sámbar* are found in the forests of the Ghâts and the *chital* and bison in Kánara. The panther and *bhekri*, or four-horned deer, are commoner. Game birds are somewhat scarce, except snipe in the northern Konkan. Snakes, especially the cobra (Naja tripudians) and the *phursa* (Echis carinata) are common and deadly. The great kingcobra (Elaps ophiophagus) is found in Kánara. The sea fisheries are important and give employment to several distinct castes.

POLITICAL.

Historical Summary.

I.—Hindu Period, B.C. 1000—A.D. 1300.

Aryans and Dravidians, B.C. 1000—500.

1. In the earliest times of which we have any record the Aryans were already settled on the Indus and even knew of trade by sea. But the greater part of the West Coast was peopled by Dravidian tribes, who lived in forts and villages under the rule of kings, carried on the ordinary arts of life, such as weaving, pottery and working in metals, and worshipped spirits and demons of all degrees, besides a supreme deity known as *Ko* (King).

An export trade to the Red Sea by way of East Africa sprang up as early as 1000 B.C., and with Babylon by way of the Persian Gulf not later than 750 B.C. By the latter route the Indian traders took home the Bráhmi alphabet, the parent of all modern Indian scripts, as well as the art of brickmaking, and possibly the knowledge of the lunar mansions (*nakshatra*), the Babylonian weights (*maná*) and the legend of the flood.

Persians, B.C. 500—330.

2. About B.C. 507 Darius conquered the whole Indus Valley and gave a fresh impetus to trade, which among other things introduced the art of coining money. But before Alexander's time Persian rule in Sind had passed away, and traffic by sea with the Persian Gulf and the coast of Arabia seems to have been extinct. Meanwhile India south of the Vindhyas was being Aryanised in faith and partly in speech, not at first by conquest, but by peaceful settlements of Bráhmans at Broach and along the line of the Western Ghâts.

Alexander, B.C. 325. The Mauryas, B.C. 322—185.

3. For Western India the importance of Alexander's march down the Indus (B.C. 325) lay chiefly in the fact that it cleared the way for the huge empire of the Mauryas, whose founder, the adventurer Chandragupta (B.C. 322-298) ruled from Pátaliputra (Patna) on the Ganges the whole of India north of the Vindhyas, including Sind and Gujarát, and received a Greek ambassador at his court. His grandson Áśoka (B.C. 273—240), who became an ardent Buddhist, added to this kingdom Kalinga, and the whole Western Coast down to Mysore, and brought under his influence the Maráthás of the Dakhan (Rastikas and Petenikas) as well as Berár. Western India was placed under the Prince-Governor of Ujjain, while such towns as Junágadh, Supára, Vanavási and Isila (unknown) were the head-quarters of local Chiefs (*prádeśikas*) and royal officers (*mahámátras*). Missions spread Buddhism among the traders of the coast towns and the Western Dakhan which by this time was more or less completely Aryanised: and Jainism also seems to have first reached the south at this period. It was a time of peace and of active intercourse with foreign nations, especially the Syrian Greeks. As'oka's empire broke up after his death, the western provinces being divided between the princes of Takshaśila and Ujjain: but the dynasty maintained its existence till B.C. 185, and its name at least revived in much later times in the Konkan (6th century) and in Málwa (8th century).

Bactrian Greeks and Sátavahanas, B.C. 180—100.

4. The fall of the Mauryas was followed by the invasion of the Panjáb by the Bactrian Greeks (B.C 180) who occupied the whole country as far east as Mathura. Menander (B.C. 110), a prince of Buddhist leanings, and his successor Apollodotus (B.C. 100) probably ruled in Sind and Káthiáwár. Further south the heritage of the Mauryas fell to the Sátaváhanas of Paithan on the Godávari, a Dravidian family whose power by B.C. 100 had reached Násik and the Western Ghâts.

Foreign invaders, B.C. 100—A.D. 100.

5. In the meantime a great migration of the nations of Northern Asia brought the Yuechi or Kushans into Bactria (B.C. 126) and eventually (B.C. 20) into north-western India, while a number of Turki or Tartar tribes overran Seistan and Baluchistan (B.C. 100) and established several kingdoms there and in Sind (Maues). The new comers infused new vigour into Indian culture; Buddhism now first began to cross the frontiers (A.D. 70); and the trade with Rome which sprang up about A.D. 40 brought ever-growing wealth to the cities of the Western Coast.

Kshatrapas and Sátavahanas, A.D. 100—300.

6. About A.D. 100 the Northern Kshatrapa Nahapána occupied Málwa, Gujarát and the Western Dakhan down to Junnar, where he ruled till at least A.D. 124. About A.D. 130 the Sátaváhanas of Paithan recovered their Dakhan provinces, while Nahapána's northern dominions fell into the hands of Chashtana, the founder of another line of Kshatrapas, who retained Káthiáwár and Gujarát till about A.D. 300. Their best known ruler, Rudradáman

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(A.D. 150) held the sea-board from the mouth of the Indus to the Damanganga, together with the inland country from Multán to Bhilsa. The kingdom of his rivals, the Sátaváhanas, stretched across the peninsula from sea to sea, and on the west from the Damanganga to Vanavási in Kanára, the chief towns being Dhanakataka (Dharnikot) in the Kistna Delta, Tagara (Ther) near Naldrug, and Paithan on the Godávari. About A.D. 210 their power in the west seems to have died out, while that of the Kshatrapas took its place (c. 230—300 A.D.). The country flourished so long as the two kingdoms were at peace. Bráhmans and Buddhists shared the royal bounty; and merchants of Datamiti (Demetrias) in Sind, of Broach in Gujarát, of Násik and Karád in the Dakhan, and of Sopára and Kalyán in the Konkan, vied with each other in building temples and monasteries on all the main roads to the coast. The Kshatrapas, foreigners as they were, were the first Indian dynasty to use classical Sanskrit in inscriptions, and Rudradáman himself was versed in all the learning of the Bráhmans: and the Sátaváhanas seem to have given much encouragement to Prákrit literature. After the fall of the Paithan dynasty (A.D. 210) Broach monopolised the European trade which was much encouraged by the Kshatrapas, who now seized and held Kalyán: but before long, through troubles in Sind, where we hear of quarrels among Paithan Chiefs (A.D. 247) the fall of Palmyra (A.D. 273), and the extinction of Chashtana's line (c. 300 A.D.), commerce fell into decay.

Transition period, A.D. 300—500.

7. The next century and a half is a period of great obscurity. Of Sind we hear nothing: in Gujarát a series of short-lived Kshatrapa dynasties followed each other till c. 410 A.D., when the country was conquered by the Guptas, who held it not without difficulty till about A.D. 460: and in the Dakhan and Konkan we can dimly trace a number of small kingdoms, some of them founded by northern tribes (Abhíras). In the latter half of the fifth century new races come upon the scene. New Central Asian hordes, led by the White Huns, poured into India from the north-west, conquered Sind, and spread over the whole country as far as the Narbada. South of that river on the coast and in the Northern Dakhan an extensive though short-lived empire was formed by the Traikútakas, who were either identical or closely connected with the Kalacuris of Tripuri near Jabalpur.

Sixth Century.

8. From A.D. 500 onwards the new foreign invaders quickly became Hinduised, and became the parents of some of the most famous Rájput clans. The Bráhmanic sects began to get the upper hand over Buddhism, and Persian and Arabian influences became more powerful than European. The White Huns set up a dynasty of Sháhis in Sind, whose history henceforth depended more upon its relations with Persia than upon its dealings with other Indian powers. In Káthiáwár the Valabhis, who were probably of northern origin, though they seem to have served the kings of Málwá, established themselves on the ruins of the Gupta power. In the Narbada Valley and south Gujarát the Traikútakas maintained themselves until about A.D. 580, but they probably lost their Dakhan provinces somewhat earlier. The Northern Konkan was ruled by the Mauryas of Puri near Bombay, while the coast further south obeyed the Kadambas of Vanavási, and the Southern Dakhan was the theatre of a struggle between two local tribes, the Chálukyas and Ráshtrakútas.

Sháhis, A.D. 600—711.

9. Until about A.D. 630 the Sháhis continued to rule Sind at Alor and Bráhmanábád, and kept up active intercourse, sometimes friendly and sometimes hostile, with the Sassanians of Persia. In northern Sind sun-worship flourished, while in the south Buddhism was strong, and the country remained to a great extent untouched by the Bráhmanical revival, though about A.D. 630 the Bráhman minister Chach usurped the throne and founded a short-lived dynasty, which was overthrown by the Arab invaders in A.D. 711.

Gujars, A.D. 600—745.

10. Further south, the States of Gujarát were overshadowed by the power of a new and energetic race, the Gujars, who had probably entered India with the White Huns (A.D. 452), and who, besides more northerly settlements in the Panjáb and Rájputána, established themselves at Bhilmál near Mount Abú. By A.D. 600 they had overrun north-eastern Káthiáwár, received the submission of the Valabhis, and set up a branch at Broach (A.D. 585—740). They rapidly assimilated Indian culture, and were the forefathers of some of the most famous Rajput races. For a time, indeed, it seemed as though the empire of the Guptas would be revived by Harsha of Kanauj (A.D. 608—649); but the confusion that followed his death left the field again open for the Bhilmál dynasty, whose fortunes henceforward determined the fate of Gujarát.

Early Chálukyas, A.D. 600—742.

11. Meanwhile (A.D. 600) the Chálukyas had emerged victorious from their struggles with the Traikútakas and the Ráshtrakútas in the Dakhan, and had absorbed the smaller kingdoms of the coast. In the seventh century, which was the time of their greatest prosperity, the senior branch ruled the Dakhan and Konkan with a northern offshoot at Navsári, while a junior line reigned at Vengi in the Kistna Delta. The Chálukyas themselves worshipped Vishnu and Siva, but Jainism flourished in the southern Dakhan, and great Buddhist establishments existed at Elurá, Ajantá and elsewhere in the Northern Provinces. But after the Arab conquest of Persia (A.D. 640) foreign trade became extinct, and the strength of the Chálukyan empire was wasted in endless wars of conquest with its southern neighbours.

Eighth Century. Gujarát.

12. The eighth century saw the entrance of the Musalmáns into Indian politics (A.D. 711), and the fall of the Western Chálukya dynasty (A.D. 742). The Musalmáns raided Gujarát, and destroyed the famous city of Valabhi (c. 770 A.D.), but their permanent conquests were limited to Sind, the history of which from this period is dealt with in the next section. The Chávadás, a Rájput tribe of probably Gujar origin, took advantage of the confusion caused by the Moslem raids to found the first kingdom of Anahilaváda (A.D. 746) probably with the countenance and aid of the Gujars of Bhilmál, whose empire in the course of the next fifty years covered all Rajputána and Málwa, threatened Bengal and eventually shifted its centre to Kanauj.

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13. South of the Máhí also changes not less far-reaching took place. The Ráshtrakútas at last (c. 742 A.D.) overthrew their old enemies the Chálukyas, whom they penned in Mysore, and set up a new Empire with its capital at Málkhed, sixty miles south-east of Sholápur. The new kingdom was not so extensive as the old, for it did not include the territory of Vengi: but it was strong enough to prevent any northern power securing a lodgment on the southern bank of the Narbádá. *Dakhan.*

14. The balance of power between the Gujars and the Ráshtrakútas lasted for about two centuries (c. 750—950 A.D.). The Gujar Empire seems to have very soon shown a tendency to break up into separate states (Chauháns of Ajmir, Parmárs of Dhar, Chávadás of Anahilaváda &c.). The Gujarát branch seems to have encouraged literature and especially to have patronised the Jains. In Káthiáwár a new kingdom was founded at Girnár by the Chudasámás (c. 850—1125 A.D.) who migrated from Sind by way of Cutch. The foreign policy of the Gujars was determined by the presence of the Ráshtrakútas on their southern frontier, which seems to have been usually the Máhi. Neither kingdom was strong enough to encroach to any large extent upon the territory of the other; a state of things to which the dissensions between the Ráshtrakútas of the main line and a branch that ruled in Gujarát may have contributed. The Ráshtrakútas carried on a good deal of desultory frontier fighting and had to meet several attacks from the Chálukyas of the south, but after the reign of Govinda III (A.D. 808) they do not seem to have attempted conquests on a large scale. They were S'aivas in religion, but Amoghavarsha I (A.D. 850—877) was a patron of Jaina literature. The power and magnificence of the dynasty greatly impressed the Arabs, to whom the king was known as the Balhará (Vallabharája). But the local chiefs with whom the Arabs chiefly came in contact were the Siláháras of Puri, Cheul and Thána, who were made Governors of the Konkan in the reign of Amoghavarsha I. Another branch of the same family ruled the coast further south (A.D. 800—1008). The trade with the Persian Gulf revived, and brought with it a great influx of Pársi refugees (A.D. 775) who found a ready welcome at the hands of Chiefs who honoured impartially S'iva, Buddha and Jina. But this revival of trade was attended with a great outburst of piracy, in which the daring sailors of Western Káthiáwár took a leading part. *Gujars and Ráshtrakútas. A. D. 750—950.*

15. In A.D. 946 the kingdom of Anahilaváda was conquered by Múlarája Solanki, son of a Gujar Chief who probably ruled somewhere in Northern Rajputána. A few years later (A.D. 973) a revolution took place in the Dakhan also, when Tailapa II, who was connected in some way with the old Chálukya family, overthrew the Ráshtrakútas and set up a new Chálukya kingdom, for whose capital Kalyán in the Dakhan was soon chosen. His follower Bárappa founded a subordinate dynasty in Southern Gujarát, but further south the S'iláháras still continued to rule the coast. *Solankis and Chálukyas. C. 950—1150 A.D.*

16. In Gujarát the direct descendants of Múlarája reigned at Anahilaváda until A.D. 1143. In religion they were S'aivas and showed a special attachment to the temple of Somnáth, which frequently brought them into collision with the Chudásamás of Girnár, who commanded the road to that holy place. The Chudásamás called in the aid of the Chiefs of Cutch and Sind (probably the Sumrás) and were not finally subdued till A.D. 1013. The northern frontier of the Solanki kingdom was constantly threatened by the Chauháns of Ajmir, who however never inflicted any serious defeat on the Anahilaváda kings. Wars with Málwa were also frequent till about A.D. 1134 when Siddharája defeated the Paramáras and occupied Ujjain. The relations of the Solankis with the Chálukyas of the Dakhan were at first hostile and some time after A.D. 1050 the Solankis conquered Gujarát south of the Máhí; but the later kings of Kalyán seem to have been on friendly terms with their northern neighbours. The famous sack of Somnáth by Mahmud of Ghazni (A.D. 1023) seemed to threaten the extinction of the Solanki kingdom, but produced no lasting effects and the Anahilaváda Chiefs were left free to patronise literature and to adorn their chief towns with beautiful buildings. *Gujarát.*

17. The Dakhan remained from about A.D. 973 to 1156 in the hands of the Chálukyas of Kalyán, who adopted on a large scale the system begun by their Rashtrakútas predecessors of placing large provinces under hereditary Governors, a policy which eventually proved fatal to their power. They carried on a series of indecisive wars with the Cholas of Kanchi (Conjeveram), and inflicted severe defeats on the Paramáras of Málwa and the Kalachuris of Tripuri (near Jabalpur), but did not attempt any lasting conquest of those kingdoms. They encouraged trade and showed much favour to Musalman settlers on the coast and like most Indian kings of this period, they surrounded themselves with poets and scholars and posed as patrons of literature. But the power of the feudatories always tended to increase at the expense of the central Government, while a rival arose in Mysore in the Hoysala line of Halebid, who first became dangerous about A.D. 1120. *Dakhan.*

18. Towards the middle of the twelfth century, the throne of Anahilaváda passed to a collateral branch of Múlarája's line, but the change brought with it no alteration in policy beyond an increase in the influence of the Jains. Káthiáwár and Málwá were nominally provinces of Anahilaváda, but we still hear of wars against chiefs who continued to resist the Solanki arms. The Konkan was invaded (about A.D. 1160), but without permanent results, while the Chauháns of Ajmir continued to threaten the northern frontier. The far more serious danger of Muhammadan conquest was averted by the defeat of Muhammad Sám in A.D. 1178, which saved Gujarát from serious molestation for more than a century. But the Solanki kingdom had in its hereditary feudatories the same source of weakness as the Chálukya Empire of Kalyán; and when the last scion of Múlarája's line died in A.D. 1242, all power had already passed to the Vaghelá chiefs of Dholká. *Solankis. A.D. 1143—1242.*

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Dakhan, A.D. 1157—1212.

19. The same century that saw the decline of the Solankis (A.D. 1143-1242) witnessed also a long and complicated struggle for the mastery of the Dakhan. About A.D. 1157, Vijjala, a Kalachury feudatory of the Chálukyas, set up as an independent ruler at Kalyán, whence the Chálukyas fled; but the new dynasty was hardly founded when it was overthrown (A.D. 1167) by a revolution in which Basava, the founder of the Lingáyat sect, is said to have been the leader. The Southern Dakhan now fell into absolute confusion, and most of the great feudatories claimed independence, while the last of the Chálukyas and of the Kalachuris fought for the mastery, and the Hoysala king stood ready to destroy the victor. In the Northern Dakhan, where there were fewer competitors, the feudatory Yádavas of Devagiri had been steadily enlarging their boundaries and strengthening their armies for the final struggle.

The Hoysalas were the first to move. They destroyed the Kalachuris in A.D. 1184 and the Chálukyas in 1192, in which year they also defeated the Yádavas, and for a time it seemed as if they would succeed to the whole heritage of the Chálukyas. But, after an interval of struggle the Hoysalas were driven back into Mysore, and the Yádavas under Singhana remained masters of the Dakhan (A.D. 1212). The Konkan Chiefs, however, maintained their independence for some time longer.

Vaghelás. A.D. 1233—1297.

20. The Dholka Chiefs, who about A.D. 1233 superseded the Solankis in Gujarát, belonged to a younger branch of the Royal house, but their power was only a feeble caricature of the greatness of their predecessors. Their kingdom shrank to a part of Northern Gujarát and Eastern Káthiáwár, and their wars were little more than cattle lifting raids. They were obliged to submit to, and to conclude a treaty of alliance with, the Yádava kings of the south. Still at this time commerce flourished, and merchants spent large sums in building temples, while court poets and panegyrists were not wanting. But the real weakness of the kingdom is evident from the ease with which Alá-ud-din's brother Alafkhan subdued it in a single campaign (A.D. 1297).

Yádavas. A.D. 1212—1318.

21. The Yádavas also did not long enjoy their kingdom. Their first task, the subjugation of the great feudatories, was completed in the Dakhan about A.D. 1250, and in the Konkan some ten years later. It is notable that we now for the first time meet with Bráhman generals and Bráhman provincial governors, employed in preference to the hereditary local chiefs whose power had proved so dangerous. The Yádavas had no serious rivals on their frontiers, and we hear little of their foreign relations. Their own kingdom was peaceful and prosperous in reaction from the troubles of the preceding century: the treasury was full, many temples were built (Hemádpant), learning flourished, and a vernacular literature began to spring up (Jñaneśvara). But these fair prospects were put an end to by an unforeseen enemy. Alá-ud-din Khilji suddenly appeared before Devagiri with 8,000 men, swept off the treasures of King Rámachandra and exacted a promise of tribute (A.D. 1294). After several revolts the last of the Yádavas was put to death in 1318 and the Dakhan became a Muhammadan province.

II.—EARLY MAHOMEDAN PERIOD.

SIND.

1. Sind was conquered by the Syrian Arabs under Muhammad Kásim in A.D. 711—715, and continued to receive Governors from Bagdád until A.D. 871, after which date for about a century it was divided between the Arab states of Mansura and Multan. The Arab garrison settled down in the country and married native wives, and the civil government was left much in the hands of the Bráhmans. The sun-worship of Multan and the Buddhism of Southern Sind were tolerated, though the system of taxation gave such strong motives for conversion to Islám that, by the middle of the 14th century at latest, Sind had become a thoroughly Musalmán country. In the Arab period a large revenue was raised and trade flourished. The earlier Governors made Sind an outpost of Islám, from which they ravaged the neighbouring Hindu kingdoms as far as Málwa and Broach, but the later Chiefs were not strong enough to push their conquests further into India. An important feature of the period was the migration of Turki tribes in small bodies from the Oxus into India, where some of them fell under the spell of Islám, while others became Hinduised.

Arabs.

2. The spread of the Karmatian heresy from about A.D. 935 onwards drew down upon Multan the vengeance of Mahmud of Ghazni, who twice took the city (in A.D. 1005 and 1011) and marched through the whole length of Sind on his return from Somnath (A.D. 1023). The Karmatians, however, long remained powerful in the province through the adherence of the Sumra tribe, whose chief centre was in the south.

Karmatians.

3. The annexation of Northern Sind to the Delhi Empire dates from A.D. 1175, when Multan was taken by Muhammad Sám. The city was henceforward the seat of a Governor and the chief bulwark against the Mughals. Muhammad overran the sea-board also in A.D. 1182, but, under the Sumras, and from about 1351 under the Samma Jams of Thatta, the small chiefships of the south did not acknowledge the over-lordship of Delhi with any steady allegiance. During the 13th and 14th centuries the country suffered much from Mughal raids, but the reign of Jam Nizámuddin (A.D. 1461—1509) was a period of prosperity in the south. Northern Sind in his time was ruled by the Afghan Chiefs of Multan (A.D. 1445—1525), who brought in Baluchi settlers in large numbers.

Sumras and Sammas.

4. In 1521 the Sammas were displaced by the Arghun Turks, with whom Humayun came into collision during his wanderings (A.D. 1540—1543). The Arghuns in their turn were driven out in A.D. 1554 by the Tarkhans, in whose time Thatta was sacked by the Portuguese (A.D. 1556). Bhakkar was occupied by Akbar's officers in 1574 and Thatta in 1591, from which latter date Sind once more became a province of the Delhi Empire.

5. For nearly a century (A.D. 1297—1392) Governors were sent to Gujarát by the Sultáns of Delhi, but their province included only the open country about Patan, Cambay, Baroda and Broach, and the lower Tápti, and yielded a revenue of about two crores. This territory suffered from the turbulence of the Mughal mercenaries, and from the hostility of the Hindu Chiefs of Káthiáwár and the eastern hills, who were only brought to temporary submission by the presence of Sultan Muhammad Tughlak himself (A.D. 1347—1350). The last Governor, Zafar Khan, the son of a converted Tank Rajput, was left more and more to himself owing to the increasing weakness of the central power and finally assumed the title of king in A.D. 1407.

6. Owing chiefly to the unusual capacity of two of his descendants, Ahmed Shah (A.D. 1410—1441), the founder of Ahmadábád, and Mahmud Shah Begarha (A.D. 1459—1511), the kingdom flourished down to A.D. 1526, and lingered on, despite the factious quarrels of its nobles, until the province was conquered by Akbar in A.D. 1572. At its best period the kingdom comprised Northern Gujarát from Abu to the Narbada, Káthiáwár, which became a Musalmán province through the occupation of Diu (A.D. 1402) and Girnár (A.D. 1471) and the sack of Dwárka Bet (A.D. 1473); the Tápti Valley as far east as Thalner; and the tract between the Ghâts and the sea from Surat to Bombay.

7. Between these southern districts and those of the Bahmanis, with whom Gujárát was usually at peace, lay the buffer states of Báglán and Burhánpur, the latter of which became for a long time a Gujaráti dependency under the Faruki Chiefs of Thalner and Asirgad (A.D. 1370—1599). The kings of Gujarát were almost uniformly successful in war, but could not permanently subdue their neighbours of Chitor and Málwa, though the latter province was for a short time annexed (in A.D. 1531). For the most part their dominions enjoyed internal peace, pirates were kept in check, the arts and industries were encouraged, and cultivation increased under an efficient revenue system, in spite of occasional famines (as in A.D. 1482 and 1525—1526). The earlier kings took a fanatical pleasure in the destruction of Hindu temples, but the later rulers employed even unconverted Brahmans in high office.

8. The decline of the kingdom set in under Bahádur Shah (A.D. 1526—1537), who neglected the civil Government and wasted the strength of the State in wars in the Dakhan, Málwa and Chitor, so that he was unable to offer much resistance to Humayun (A.D. 1534), who might have held Gujarát permanently had he not been recalled to Agra by the proceedings of Shir Shah (A.D. 1535). The last king of the dynasty submitted to Akbar in A.D. 1572, but rebelled in A.D. 1583, and was not finally captured till A.D. 1593, in which year the Mughals also took Junágad.

DECCAN.

9. The Dakhan was organised as a Mahomedan province by Muhammad Tughlak, who divided it into four districts for which he appointed Moslem chiefs and collectors and brought down settlers of all classes from Delhi. It included at least Chaul, Dábhol, Deogir, Kandhár, Bidar, Kulbarga and Ráibág, and for a time Varangol, which last, however, was soon retaken by the Hindus. The garrison was commanded by Mughal and Afghan officers, who in A.D. 1347 were driven into revolt by the severity of the Sultan and set up a separate kingdom under the rule of Hasan Gangu Bahmani, a low-born Afghan of Delhi. Henceforward until A.D. 1586 the Sultans of Delhi were too busy in Northern India to intervene in the affairs of the Deccan.

Bahmani Sultán, A.D. 1347—1525.

10. The house of Bahmani did not die out until A.D. 1525, but it ceased to be of political account after A.D. 1482. It produced some active soldiers, but no really great ruler, and its prosperity was due partly to a succession of able ministers, partly to the absence of any rival of really equal energy. The centre of the Bahmani power was the open country of the Dakhan from Daulatábád to Kulbarga. The frontier was advanced to Kaulas in A.D. 1351, to Golkonda in A.D. 1373 and to Varangol in A.D. 1424, but did not reach the Bay of Bengal until 1472. South of Dábhol and the Krishna, the Konkan and Karnátic were for the most part held by petty Hindu chiefs who looked for aid to the Rájas of Vijayánagar, with whom the Bahmanis disputed the possession of the Ráichur Doáb and the fort of Bankápur.

11. The Moslems were on the whole successful in these wars and retained the Doáb, but their progress in the Ghâts and Konkan was very slow and incomplete. They invaded the Konkan in A.D. 1429 and 1436 with only partial success, and in A.D. 1453 with disastrous failure and did not effectively occupy Goa till 1470. Their power in the Konkan at no time extended beyond a few of the larger ports. The Bahmanis carried on war against the neighbouring Hindu powers in milder fashion than most Moslem kings, and freely employed Hindus in civil offices. The best of them also put down robbers and pirates, fostered the trade of Chaul and Dábhol, embellished their towns with buildings, and patronised saints and poets. The interior of their country seems to have enjoyed peace, but suffered from terrible famines in 1396—1407 and in 1472-1473. The downfall of the dynasty was brought about by the bitter jealousy between the Dakhani nobles and the foreign chiefs (Afgháns, Turks, Mughals, Persians and Arabs) upon whom the Sultans chiefly relied.

12. At the end of the 15th century, the Bahmani Empire was divided into five separate kingdoms, the more northerly of which (Ahmednagar and Berár) were founded by Dakhani nobles, while the three southern states of Bijápur, Bidár and Golkonda were established by Turki chiefs. About the same time (A.D. 1490) there was a change of dynasty at Vijayánagar also, and the Portuguese profited by the troubles to gain a footing on the coast. The quarrels between the foreign and Dakhani parties broke out afresh both at Ahmednagar and at Bijápur and proved the ruin of the former kingdom. The house of Ahmednagar was of Bráhman origin and freely

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employed its fellows in high civil offices. The Bijápur kings, who descended from the Marátha wife of their Osmanli founder, from about A.D. 1535 made Maráthi their official language and took Bráhman clerks and Marátha soldiers into their service. The Ahmednagar kingdom included the port of Chaul, the valley of the Godávari as far as Nánder, and the greater part of the present Násik, Nagar, Poona and Sholápur districts; Sholápur itself, together with Naldrug and Kalyáni, were usually held by Bijápur, though the Nagar kings claimed them whenever they felt strong enough. The districts of Mudgal and Ráichur were a similar bone of contention between Bijápur and Vijayánagar.

13. The original partition of the Dakhan had no elements of permanency, as the statesmen of the period were well aware, but the balance of power was preserved by constantly shifting alliances in which the Moslem states and the rulers of Vijayánagar took part, until the ravages committed by the Hindu troops in 1562 brought about a league between the Mahomedan powers, which destroyed the Vijayánagar Kingdom (A.D. 1564). Ahmednagar then proceeded to absorb Berár (1572), while Bijápur set about conquering the Hindu districts south of the Krishna. During this period the Eastern Dakhan was disturbed by perpetual warfare and the Moslems were not strong enough at sea to protect their trade against the Portuguese, whose own commerce fell into decay after the sack of Vijayánagar. Although the Faruki King of Khándesh had acknowledged Akbar's supremacy in 1572, the Emperor did not actively intervene in the affairs of the Deccan until A.D. 1586, when his troops unsuccessfully invaded Berár in support of a pretender to the throne of Ahmednagar. In spite of this warning the reckless factions of the Dakhan did not compose their differences. In 1595 a new Mughal army besieged Nagar and compelled the cession of Berár, and in 1596 war broke out afresh and ended in the capture of Nagar and the imprisonment of the boy king by the Mughals (A.D. 1600). Khándesh had become a Mughal province in the previous year (1599).

THE PORTUGUESE.

14. In 1498 the Portuguese came to Calicut in search of "spices and Christians." Their crusading valour soon gave them a footing in the ports of East Africa and Malabár, and after defeating the Egyptian fleet at Diu in 1509, they became unquestioned masters of the Indian Ocean, where they were careful to allow no local navy to grow up and no merchantmen to trade without their pass. The next step was to establish settlements on the coast, in which they were helped by the weakness of the country powers. They took Goa in 1510, Malacca in 1511 and Ormuz in 1515. Later, the decay of the kingdom of Gujarát enabled them to occupy Chaul (1531), Bassein with its dependencies, including Bombay (1534), Diu (1535) and Daman (1559). But they soon became a corrupt and luxurious society, based upon slave labour and mixed marriages, and recruited by place-hunters and wastrels from home. The cruelties of the Inquisition (from 1560) alienated the natives and the union of Portugal with Spain (1580) deprived the Indian settlements of their claim to be the first care of the home Government. The Portuguese monopoly of the trade with Europe could henceforth last so long only as no European rival came upon the scene. On land, however, they were strong enough to beat off all Moslem attacks on Goa (1570) and Chaul (1570 and 1592—1594).

III.—MUGHAL PERIOD, 1600—1739 A.D.

MUGHAL EMPIRE.

1. By the end of the 16th century the Delhi Empire included the whole of Sind, Khándesh and Gujarát, with the exception of the Portuguese possessions of Diu, Daman, Bassein and Bombay. Northern Sind with Sibi formed the Sirkár of Bhakkar under the Suba of Multán. Southern Sind formed the Suba of Thatta; Cutch, Káthiáwár and Gujarát were under the Subadár of Ahmedabad; Sultánpur and Nandurbár formed a Sirkár of the Suba of Málwa: and Eastern Khándesh with parts of Nimár and Berár formed the Suba of Dandesh, with its head-quarters at Burhánpur. The Subadárs had both military and civil powers and were assisted in the former department by Faujdárs of districts, and in the latter by a Diwán with a staff of revenue officers and Kotwáls. The efficiency of the administration was, however, much weakened by frequent transfers of officers, especially the Subadárs, and by the practice, which soon grew up, of allowing the great nobles to remain at Court and to carry on their Governments by deputy. The land-tax, which was fixed at the cash equivalent of one-third of the produce, was the chief head of revenue and was assessed upon a system devised by Rája Todar Mal. Akbar abolished many minor imposts and transit duties and prohibited Sati and the enslavement of prisoners of war, but it is doubtful whether the control of the central power was at any time strong enough to enforce the Emperor's benevolent measures in distant provinces. The Emperors down to Aurungzeb employed Hindus and Mussalmáns indifferently in positions of trust and did not levy the Jizya from the former.

Sind.

2. Sind remained a province of the Delhi Empire until 1739, when it was ceded to Nadir Shah and again became cut off from the general stream of Indian history. It was often combined with the Suba of Multán and governed by a prince of the royal house such as the unhappy Dara Shukoh. But progress was checked by the prevalence of robbers and by the feuds of the Baluch tribes, and the revenues of the province fell from 40 krors of dams under Sháh Jahán to about 30 krors under Aurungzeb. By 1658 the Kalhora tribe was able to hold its own against the Mughals: in 1701 it conquered Shikárpur. By 1739 the Kalhora Chiefs were the real masters of the whole of Sind. The two great trading centres of Sind were founded during this period, Shikárpur about A.D. 1605 by the Daudpotras after hard fighting with the Jatois and Karáchi in A.D. 1729 by a peaceful migration of traders from Kharak.

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3. In Gujarát, down to the death of Aurungzeb (A.D. 1707), the Mughal Viceroys were on the whole successful in maintaining order and prosperity in spite of the turbulence of the Kolis and Rajputs in the north and the famines of A.D. 1596, 1631, 1681, 1684 and 1697—1698, and of the Dakhani attacks on Surat which was sacked once by Malik Ambar (A.D. 1609) and twice by Shiváji (A.D. 1664 and 1670). Almost throughout the Mughal period the province yielded a revenue of nearly two krors of rupees and a large foreign trade was carried on at the ports of Cambay, Broach and Surat. The English factory at the latter port was founded in 1613, but not fully recognised by the Government till 1616.

4. The decline of Mughal rule began with a Marátha raid across the Narbada in A.D. 1705. From 1711 these invasions became annual and the Maráthás established themselves successively at Songad (1719), Chámpáner (1723) and Baroda (1734). The beginning of the end came during the Governorship of Sarbuland Khan (1723—1730), who farmed out the revenues and admitted the Marátha claims to *Chauth* and *Sárdeshmukhi*. Henceforward although the Delhi Court continued to appoint Viceroys until A.D. 1748, absolute anarchy reigned in the province which was ravaged impartially by the hostile leaders of the Peshwa's and the Gáikwár's armies, by the Rájas of Jodhpur, by the agents of Nizám-ul-Mulk, and by such local Moslem chiefs as the Bábis, who established themselves at Junágad (1738) and Bálásinor (1761), the Jháloris, who settled at Pálanpur (1715) and Momin Khan, who set up the state of Cambay (1748). Famines in 1719, 1732 and 1747 added to the misery of the people. In 1737 the Gáikwár was admitted to a full half share in the revenues of the province and occupied Ahmadábád jointly with the Viceroy's troops (1738). Broach from 1731 to 1752 was held by a deputy of the Nizám, but had to give up a share of its customs to the Gáikwár. Surat suffered chiefly from the violence of rival candidates for the Governorship.

Dakhan.

5. By 1600 the Mughals held Khándesh and the ports of Nagar and Násik, but had by no means subdued the open country or crushed the Dakhani Mussalmáns, who established a new capital at Khirki (Aurungábád) close to their old centre of Daulatábád. In 1609 Malik Ambar recovered Ahmadnagar and nearly the whole of the old Nizámsháhí dominions, and sacked Surat. Almost until his death (1626) he remained master of the Dakhan, where he introduced the revenue system that has made his name a household word. The Mughals did not really regain their position until 1630, or finally crush the Nizámsháhís and capture Daulatábád until 1633. These successes brought them into collision with the Bijápur Government which had hitherto followed a temporising policy. The result of the war was a peace very favourable to Bijápur, which gained the territory between the Bhima and the Nira, as well as the Northern Konkan up to the Bassein river (1636). The peace lasted for twenty years (till 1656), during which the Mughals pacified the Northern Dakhan and introduced Todar Mal's revenue system, while the Bijápur Government turned its attention to the conquest of the petty chiefs of the Karnátic.

THE MARATHAS.

6. At this time the Hindus begin to play a leading part in the Dakhan. For a hundred years the Maráthás had been learning warfare, and the Bráhmans the arts of government, in the service of the Bijápur Kings. At the same time there had been a notable revival of Hindu religious feeling under the guidance of Vaishnav preachers (Eknáth: Tukárám). The Mughals had destroyed Ahmadnagar and were threatening Bijápur. The old order was clearly falling to pieces and the Maráthás only wanted a leader. They soon found one in Shiváji.

Shiváji, A.D. 1627—1680.

7. Shiváji Bhosle was born (1627) and brought up in the country which passed from Nagar to Bijápur under the treaty of 1636, and though a younger son, was initiated very early into the management of the family estate, owing to the absence of his father and brothers in the Karnátic. He was trained from the first as the Hindu ruler of a Hindu state, though this ideal by no means excluded politic submission to a foreign superior who did not interfere in home affairs, as is shown by his acceptance of the title of Rája and a Jághir in Berár from the Mughals (1667). As his power increased, Shiváji modelled his Government more and more on the old Hindu kingship of the law books, as in his council of ministers, in his system of espionage and in the combination of peace at home with constant war abroad. The complete attainment of his ideal was notified to the world by his coronation in 1674. This restoration of the old law under a Hindu King took such a hold upon the Marátha imagination that Shiváji's system was enabled to survive the death of its founder, the incapacity of Sambháji and the troubles of the regency of Rájárám.

8. Shiváji built up his kingdom at the expense of Bijápur. He began by subduing the new provinces in the North Konkan and between the Bhima and the Nira (1646—1648). He next conquered Jávli in the old Bijápur dominions (1655) and overran the Konkan from Janjira to Goa (1659—1662), after which he built forts on the coast and began to create a navy. The Bijápur Government, distracted by wars abroad and factions at home, failed to recover its lost provinces and was compelled by an alliance between Shiváji and the Mughals to promise tribute to the former (1668). On the death of the king in 1672, Shiváji renewed the war and conquered Panálá with the open country to the east of it, Sátárá, Ponda near Goa and the ports of Kárwár and Ankola (1672—1676). The Sidis of Janjira had saved themselves by entering the Mughal service (1670). Shiváji next allied himself with Golkonda and invaded the Bijápur Karnátic (1676—1687). The Bijápur Government, now hard pressed by the Mughals, bought peace and alliance by ceding Kopal and Bellari and resigning the over-lordship of the Karnátic (1679).

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9. In his two wars with the Mughals (1662—65 and 1670—80) which interfered with his designs on Bijápur, Shiváji was not the aggressor. Aurangzeb on his part desired to weaken the Dakhani powers by fomenting their quarrels, but not to crush them until he could take the field in person. Hence the real fight for the mastery of the Dakhan did not take place in Shiváji's lifetime and his raids upon Surat (1664 and 1670), Nagar (1664 and 1679), Aurangábád (1664 and 1679), Khándesh (1670, 1675 and 1679), and Berár (1673 and 1675) were diversions only.

10. Shiváji carefully strengthened the forts in his territories, and collected his revenues direct through Government officers. His army, both horse and foot, received regular pay, and had to account for their plunder. But under Sambháji discipline was relaxed and treasure wasted, and the best officers were alienated by the cruelty and incapacity of the Rája, who gave himself up to petty warfare with the Sidis and Portuguese (1681—1683).

Bijápur, 1656—1683.

11. At Bijápur factious quarrels broke out among the nobles on the death of Muhammad Adil Shah (1656) and the fall of the monarchy was only a question of time. The Mughals besieged the city in 1657 and again in 1666. The King bought peace by the cession of Sholápur and the adjoining districts (1668). In 1675 a fresh Mughal invasion ended in a truce and alliance which was renewed in 1678. But Aurangzeb pressed for harder terms and the Bijápur regency turned for help to Shiváji who created a diversion by plundering the Mughal Dakhan (1679). But after Shiváji's death the Mughal party again got the upper hand in Bijápur and tried to recover some of the districts ceded to the Maráthás.

Aurangzeb's campaign, 1684—1707.

12. Aurangzeb judged that the time had now come for completing the conquest of the Dakhan, which he entered in person with a vast army (1684). For a time success seemed to follow his arms. He took the capital and occupied the territory of Bijápur (1686) and Golkonda (1687) and captured and executed Sambháji (1689). But he had now destroyed the only organised Musalmán power of the Dakhan and was to enter upon a war of race and religion in which the Maráthás were no longer paralyzed by the incapacity of Sambháji. The country was overrun by the disbanded soldiery of the fallen kingdoms, and the resulting anarchy gave full scope to the guerilla tactics of the Maráthás. Aurangzeb could neither trust his officers nor do everything himself, and corruption and disorganisation increased from year to year until the whole Imperial machine was out of gear. In the first stage of the war, Rájárám, the Maratha regent, held his Court at Jinji (1690—1698), which was besieged by the Mughals, while the Maratha horse overran the country in every direction. In the next period (1699—1705) Aurangzeb besieged the Maratha forts, while the Maratha horsemen ranged further afield into Málwa and Gujarát. About 1705 the tide definitely turned. The Maráthás recaptured their forts, and Aurangzeb retired to Nagar, where he died (1707).

Sháhu and the first two Peshwas, 1708—1740.

13. The Maráthás had now definitely won the fight. The Emperor withdrew the remnant of the great army of the Dakhan, but created a division among his enemies by releasing Shivaji's grandson Sháhú, who had been brought up at the Mughal Court (1707). Sháhú established himself at Sátárá, while the younger branch of Shivaji's line set up a separate kingdom at Kolhápur (1710). After a period of anarchy, Sháhú, aided by the talents of Báláji Vishvanáth, the founder of the Peshwa's line, restored order in his own States, was acknowledged (1713) by Angria the commander of the fleet, who ruled the Konkan from Kolába southwards, and obtained (1720) from the Emperor the cession of the country south of the Bhima as far east as Pandharpur, as well as the right to levy *Chauth* ($\frac{1}{4}$) and *Sardeshmukhi* ($\frac{1}{10}$) from the Mughal Dakhan, the Karnatic, Tanjor, Trichinopoly and Mysore. These levies originated in some shadowy claims over Ahmednagar which Shiváji's father had acquired in 1629 and which Shiváji put forward in 1657, but transferred in 1666 to the debit of Bijápur, which admitted them in 1668. They were afterwards extended to Khándesh (1670), then to the whole Dakhan (1699), and finally to other parts of India, and gave the Maráthás a pretext for interfering wherever they chose. The collections were so arranged as to intermingle the interests of the several chiefs and make them dependent on their Bráhman clerks. The increasing power of the Peshwa and the devotion of the Maratha forces to distant enterprises, brought about the decay of Shiváji's council of ministers, which was only suited for the management of home affairs. As the authority of the Rája grew less, the kingdom became a confederacy of leaders whose chief bond of union was a joint interest in their plunder. The year 1724 was a turning point in Dakhan history, marked by the definite adoption by Sháhú, under the influence of Báláji's son Bájiráo, of the policy of destroying the Mughal Empire, in preference to consolidating his own dominions in the south, and by the arrival in the Dakhan of Nizám-ul-Mulk, nominally as the Emperor's deputy, but really as an independent ruler. The Nizám desired to free the *Suba* of Hyderábád from the Maratha claims, but was completely defeated (1728). His ally, the Rája of Kolhápur, was bought off by the cession of the country between the Varna and Tungabhadra (1730); and his tool, Trimbakráo Dábháde, was defeated and slain (1731). The Peshwa now (1732—1736) turned his attention to Málwa and advanced to the gates of Delhi. In 1737 the Nizám was induced by the Emperor to invade Málwa, where he was defeated: but in the Dakhan his troops met the Maráthás on equal terms and peace was restored to the vexation of Bájiráo, who died in 1740 hard-pressed by debts and by the intrigues of his enemies at Court. Meanwhile the ruin of the Mughal Empire was completed by the invasion of Nadir Shah (1739).

Konkan.

14. Events in the Konkan, during the Mughal period, concern chiefly the local relations between the Portuguese, the Sidis of Janjira, the Angrias and the English.

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15. In 1600 the Portuguese held the coast from Daman to Bombay, as well as the detached settlements of Diu, Chaul and Goa, and their monopoly of the trade with Europe and control over the coasting traffic had not been seriously questioned. They were, however, unable to exclude the English, who, having formed the East India Company in 1599, sent ships to Surat in 1608, beat the Portuguese in two sea fights off that port in 1612 and 1615, and took Ormuz from them in 1622. The Dutch also appeared at Surat in 1616, joined the English in burning Bombay in 1626, twice blockaded Goa (1639—42 and 1660), planted a factory at Vengurla (before 1641) and took Cochin (1663). The Portuguese perforce acquiesced in the loss of their trade, which carried with it the loss of their importance in Indian waters. They unwillingly handed over Bombay to the English in 1665, and kept on more or less unfriendly though not openly hostile terms with them. They aided Shiváji at first with warlike stores (1662), but turned against him when he made an attempt on Goa (1668), and carried on a desultory war for many years (1670—1683). When the Angrias became dangerous, intervention in their family quarrels led to a war between the Portuguese and the Peshwa, in which the former, after a heroic resistance worthy of their earlier days, lost Sálsette (1737), Bassein (1739) and Chaul (1740) to the Maráthas. *The Portuguese, 1600—1739.*

16. The Sidis of Janjira were admirals of the Nizámsháhi fleet in the days of Malik Ambar and owed a nominal allegiance to Bijápur from 1636 to 1670, when to avoid absorption by Shiváji they entered the Mughal service. In this capacity they were often unwelcome guests in Bombay, from which the English did not venture to exclude them until 1680, and to which they returned in 1689 under the Emperor's orders to enforce a peace (1690). Against the Maráthás the Sidis maintained themselves with considerable success, except in 1713, when an alliance between Angria and the Peshwa compelled them to cede some forts, and in 1735, when a disputed succession at Janjira again enabled the Peshwa to recover lost territory. The rise of the Angrias had again brought the Sidis and the English together, and in 1733 they concluded an alliance which lasted for half a century. *The Sidis, 1603—1733.*

17. The beginnings of the Maráthá fleet date from Shiváji's time (1662), but it was not till 1690 that Kánhoji Angria was given high command at sea. The war in the Dakhan gave him a free hand, and by 1713 he was recognised as ruler of the Konkan from Kolába to Vijayadrug, which latter place he made his capital. His piracies turned against him all the trading powers, but neither the English (in 1717, 1719, 1720 and 1722), the Portuguese (in 1720 and 1722), nor the Dutch (in 1724) were able to take his strongholds. On his death in 1728 quarrels broke out among his sons, but did not put a stop to their predatory activity. *The Angrias, 1603—1740.*

18. The English appeared on the coast in 1608 and obtained an authorised factory at Surat in 1616. They soon had branches at Ahmadábád, Cambay, Broach and Baroda, and in 1649 they opened one at Rájápur. Bombay was ceded to Charles II by the Portuguese under the marriage treaty of 1661, and was most unwillingly handed over to the English by the local officers in 1665. It was transferred in 1668 to the East India Company, who placed it under the President of the Factory of Surat. During the governorship of Gerard Aungier (1669—1677) the land revenue of the island was settled, law courts and a mint opened, the fort strengthened, a militia organised, and a large population of merchants and craftsmen attracted by freedom of trade and worship and other advantages. Thus firmly founded, the settlement was able to live through the troubles of the next thirty years, in spite of plague (1686), an unhealthy climate, domestic sedition (1683-1684), straitened supplies, rampant piracy, the steady unfriendliness of the Portuguese, the dangerous neighbourhood of the Maráthás and the Sidis, and finally the disputes of the old and the new East India Companies. A premature attempt (1689-1690) to wrest the mastery of the seas from the Mughals nearly brought it to ruin, but for the most part the English tried to trim between the Sidis and the Maráthás, and to keep alive what trade was left to them by the wars in the Dakhan and the depredations of the pirates. *The English, 1608—1740.*

19. In 1708 a brighter period began with the union of the two companies and the transfer of the Governor's head-quarters from Surat to Bombay. The Dakhan had become more settled and the Mughals were no longer to be feared. The two great needs of the time were now a base of supplies on the main land and the suppression of piracy. The former object was attained in 1733 by an alliance with the Sidis, but the pirates, though held in check, were not suppressed until the next period. The Maráthá conquest of Bassein and Sálsette (1737—1739) put an end to the hostility of the Portuguese, but warned Bombay to strengthen its forces by sea and land against a more dangerous enemy. The town wall had been finished in 1718, and settlers again flocked in, especially from distracted Gujarát. A bank was started (1720), reclamations begun, the law courts improved (1727-1728), and the China trade encouraged (1738).

IV.—MARA'THA' PERIOD, 1740—1803.

1. The Maráthás were the dominant power in the Presidency down to 1799, but during the first 34 years of this period (1740—1774) they had only local rivals to deal with. From 1774 onwards the history of the Presidency is the history of the struggle between them and the English, which ended in the success of the latter.

2. Gujarát was now parcelled out among a number of local chiefs who carried on ceaseless petty wars, which the Maráthás had no wish to suppress so long as they could secure their share of the plunder of the province. The Peshwa's seizure of half the Gáikwár's share in 1751 only added another claimant of blackmail. After Pánipat the local Musalmáns tried but failed *Gujarát, 1740—1774.*

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to drive out the Gáikwár (1761), and the last chance of a strong native government growing up was ruined by the disputed succession at Baroda in 1768. The internal troubles at Surat lasted until the castle was taken by the English in 1759. This event gave them claims on Broach, which had been independent since 1752, but was taken by a British force in 1772.

Dakhan, 1740—1774.

3. In 1740 the new Peshwa, Báláji, had first to strengthen his own position in the Dakhan. He bought off his most dangerous rival, Rághoji Bhosle of Nágpur, by giving him a free hand in Bengal (1744). He obtained from Sháhú on his death-bed a deed empowering him to govern the kingdom (1749); he secured the succession of a puppet rája of doubtful legitimacy (1749); won over the leading chiefs by liberal grants; made Poona the capital of the confederacy (1750); and baffled by treachery the rising of Dámáji Gáikwár (1751).

4. The old Nizám died in 1748. Báláji took part in the disputes among his sons, and, in spite of the aid given by the French to their nominee, extorted a cession of all the country west of Berár between the Tápti and the Godávari (1752). Further quarrels among the Nizám's sons enabled the Peshwa to occupy Nagar. This led to a war, at the end of which (1760) the Maráthás obtained possession of the *suba* of Bijápur, which they henceforth retained, as well as of other lands which the Mughals regained later (1763 and 1766).

5. In 1743 the Peshwa had become governor of Málwa; in 1754 his troops had decided the succession to the Mughal Empire; and in 1755 they levied *chauth* in Hindustán and at Arcot. But their military power was broken when at its height by Ahmad Sháh Abdáli at the bloody battle of Pánipat (1761).

6. This crushing blow enabled the Nizám to recover some of his lost provinces (1763); gave Haidar A'li time to strengthen himself in Mysore (1764); and freed Delhi from Marátha domination for nine years (1761—1770). The Bhosle of Berár showed a tendency to break off from the confederacy, and Báláji's brother Rághoba began that course which for twenty years made him the stormy petrel of Maráthá politics. None of the country powers, however, was strong enough to overthrow the Maráthá kingdom. The able young Peshwa Mádhavráo (1761—1772) checkmated his turbulent uncle, played off the Nizám against the Bhosle, repeatedly defeated Haidar A'li, and re-established Maráthá influence at Delhi (1770—1772). He now found time to bring his Dakhan provinces under a system of government, which, however rude, was vigorous, popular and comparatively honest, and under which he realised a revenue of some 280 lákhs of rupees.

The English, 1739—1774.

7. The English in Bombay had continued to strengthen their defences by reason of the French wars (1744—1748 and 1756—1762). Merchants and other refugees flocked to the island from the disturbed districts of the mainland, and the question of supplies as well as that of the protection of trade became more pressing. Both objects were in a measure secured by an alliance with the Peshwa, which resulted in the cession of Bánkot to the English (1755) and in the destruction of the pirate nest at Vijaydrug (1756). The occupation of Surat castle (1759) and the capture of the forts of Málvan and Redi (1765) were further steps taken in the interests of trade.

8. Even in sending an envoy to Poona in 1772 to treat for the cession of Sálsette and Bassein, which they had coveted since 1739, the object of the Bombay Government was the safety and supply of Bombay. It was not until the Presidency was made subordinate to Bengal (1774) that the Government entered the field of "high politics". In 1774 civil war broke out between Rághoba and the ministry which governed in the name of the child Peshwa Mádhavráo II.

Gujarát and Dakhan, 1774—1782.

9. Hearing of a Portuguese expedition for the recovery of Sálsette, the Bombay Government seized that island (1774) and agreed to aid Rághoba in return for the cession of Sálsette, Bassein and certain districts in Gujarát (1775). The Governor-General, however, concluded with the Poona Ministry the treaty of Purandar (1776), under which Rághoba was to be pensioned off and Sálsette and Broach were to be left in the hands of the English. But the wording of the treaty gave rise to new disputes, and the fear of a French invasion aided by the Poona Ministry led the Bombay Government to send Rághoba towards Poona with an army, which, however, was compelled to surrender at Vadgaon to Sindia and Nana Fadnis, the two leading members of the Peshwa's Government (1779). The balance was restored by the march from the Jumna to Surat of a Bengal army, which met with considerable success in Gujarát and took Bassein (1780). A league between the Peshwa, the Nizám, and Haidar A'li (whose aid the Maráthás obtained by confirming his conquests in Dhárwár) led the English to drop the scheme of setting up Rághoba at Poona, and Málwa and Madras became the chief theatre of war. Sindia was the first to come to terms (1781), and some months later Nana Fadnis also agreed to the treaty of Sálbái (1782), under which Sálsette remained with the English, who handed over Broach to Sindia. The Gáikwár was protected against the Peshwa, and Rághoba was pensioned off and died soon after (1784).

10. For twenty years (1782—1803) the British and Marátha Governments remained at peace. It was during this period that the Maráthá confederacy began to break up. The Gáikwár was detached by his acceptance of British protection (1782); Sindia had become accustomed to act alone in Hindustán, and took no part in the Mysore War (1785—1792), while the Berár Chiefs were encouraged by the English to follow a policy of their own. The last important common enterprise of the confederacy was the war with the Nizám in 1794. The national tactics had fallen out of favour, and many chiefs raised regular troops on the European model.

Gujarát, 1782—1805.

11. In Gujarát there was little improvement in the Government during this period, though, in spite of disputes in the Gáikwár's family and intrigues at the Poona Court, a semblance of

order was preserved by British influence from 1782 to 1799, when the Gáikwár took Ahmedábád and imprisoned the Peshwa's agent. Further disturbances then took place, which were put down by a British force (1803). In 1799 the Peshwa farmed his rights to the Gáikwár, who entered into subsidiary alliance with the English. Negotiations followed between the English, the Peshwa and the Gáikwár, which ended in the cession to the former of Dholka, Nadiád, Vijápur, Mátar, Kadi, Kim-Katodra, Kaira Chorási, Chikhli, a share of the Káthiáwár tribute and the *chauth* of Surat (1805). The British Government had annexed Surat in 1800 on the death of the Nawáb, whose family were pensioned off. Broach was re-conquered from Sindia by the English in the war of 1803.

Dakhan, 1782—1803.

12. After the peace with the English (1782) the first care of Nana Fadnis was to regain, by an alliance with the Nizám, the territory with which the Peshwa had bought the aid of Mysore in 1779. This object was attained in 1787, but Tipu renewed the war, and by attacking Travancore drove the English to join the alliance against him (1790). In 1792 he made peace at the cost of half his dominions, of which the Peshwa obtained the portion north of the Varada river. Nana's next object was to recover arrears of *chauth* from the Nizám (1794). In this he was successful (1795), but the advantages gained were soon lost again (1796).

13. The accession of Rághoba's son Bájiráo to the Peshwaship (1796) caused the fall of Nana Fadnis and the ruin of the Marátha power. Through his efforts to secure the throne and to shake off first Nana Fadnis and then Sindia, he incurred the distrust of all parties and plunged the Dakhan into civil wars in which the Rájás both of Sátára and of Kolhápur took part. He intrigued both with the English and with Tipu, but took no part in the last Mysore War (1799), at the end of which he found himself hemmed in between a British protectorate (the Nizám) on the east and British districts on the south. The Governor-General invited him to enter the system of subsidiary alliance, and the choice before him was either to accept or to resist. In fear of Holkar, who took Poona in revenge for the murder of his brother, Bájiráo chose the alliance, fled to the Konkan and signed the treaty of Bassein (1802). The English restored him to Poona, won battles at Assaye, at Argaon and in Hindustán against Sindia and the Berár chief, who had taken up arms on hearing of the treaty of Bassein, and forced them to sue for peace (1803).

Bombay, 1782—1803.

14. The Bombay Government took but a subordinate part in these proceedings, as from 1774 their foreign policy had been controlled by the Supreme Government at Calcutta, and in the Dakhan campaign of 1803 the chief part was taken by Madras troops. Still, so far as its means would allow, Bombay took part in the Mysore wars (1790—1792 and 1799), sent a force to occupy Perim (1799) and fitted out the English expedition to Egypt (1801). The pirates of Málvan and Vengurla became very troublesome after 1780, and nothing practical was done to check them. Bombay nevertheless grew more populous and prosperous as a city of refuge from war and famine. The great fire of 1803 led to the extension of the town from the fort northwards, where much land had been reclaimed. The Secretariat was reorganized in 1786 and the Recorder's Court was opened in 1798. The Presidency included only Sálsette, the harbour islands (from 1774), Surat (from 1800) and Bánkot (from 1756), the affairs of Northern Gujarát and the Dakhan being the business of the Governor-General's Agents at Baroda and Poona respectively. Regular Courts of Civil and Criminal Justice were set up for Sálsette and the Islands in 1799, for Surat in 1800 and for Bánkot in 1803. The revenue of Sálsette, which was at first farmed, was taken under direct Government management in 1788, reduced in 1797, and placed under a separate Collector in 1799, and a permanent settlement was offered in 1801 without success. The island was connected with Bombay by the building of Sion causeway (1798—1803.)

V.—SIND, A.D. 1739—1843.

From 1739 to 1747 Nádir Shah and from 1748 onwards the Afghán chief of Kandáhár was recognized as suzerain of Sind and held Sibi and Shikárpur. The Kalhorás, however, were for the most part left to fight out, without interference, their family quarrels and their wars with the petty chiefs of the south. Their only noteworthy act was the foundation of Haidarábád (1768). The Kalhorás were ousted by their Tálpur ministers in 1783 at the end of a regular tribal blood feud. The Tálpurs had three independent branches—one at Haidarábád, one at Mirpur and one at Khairpur. Both they and their predecessors discouraged trade, and the country relapsed into barbarism under a rude feudal system, the abuses of which were aggravated by the farming of the revenue. The English had a factory at Thatta from 1758—1775, but both this and a later mission (1799) failed. In 1809 they opened regular political relations with the Mirs, who were from the first suspicious and unfriendly, though in 1832 they were induced to assent to commercial treaties. On the outbreak of the first Afghán war (1838) a British force marched through Sind to Afghánistán much against the will of the Mirs, and detachments were stationed at Manora and Bhakkar to secure the free navigation of the Indus and the payment of the tribute due from the Mirs to the Afghán King. As the tribute was not regularly paid the surrender of Karáchi, Thatta, Sukkur and the control of the Indus was insisted upon (1843). This led to an outbreak on the part of the Baluchi troops, who attacked the Residency at Haidarábád. The rising was put down by Napier in the battles of Miáni and Dabo, and Sind became British territory (1843). It was at first made a separate province under the governorship of Sir C. Napier, who organized the Collectorates, created a military commission for the trial of offences and put down the more flagrant forms of crime. On his departure Sind was annexed to the Bombay Presidency (1847).

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VI.—BRITISH PERIOD, 1803—1902.

1. From 1803 onwards the English were by far the strongest power in Western India, although it was not until some time later that the Peshwa's Government was extinguished and the Presidency organised on its present basis.

Gujarát, 1803—1820.

2. Káthiáwár was held by a multitude of Chiefs from whom the Gáikwár collected a precarious tribute by a system of yearly raids. The English fixed the tribute (1807), put down disturbances in Navánagar (1811 and 1815), Okhámandal (1816) and Junágad (1816), suppressed piracy (1819) and took over the collection of the tribute (1820). They settled the Mahi Kántha tribute in 1811 and took over the collection in 1820. The Peshwa's farm expired in 1814, and Bájiráo once more interfered in Gujarát, but was finally excluded by the treaty of Poona (1817) and lost the remainder of his possessions in 1818. All outstanding questions were settled by a series of treaties between the British and the Gáikwár (1881). The districts of Kaira and Broach were taken over by the Bombay Government in 1805. Like Surat and Sálsette, they were organised on the old Bengal model, each having a collector for revenue duties, and a judge for civil, criminal and police work; but all important judicial cases were heard by a provincial circuit court of three judges, subject in the last resort to the Governor and Council sitting as Sadar Adálat. The law applied was usually that of the defendant. Little change also was made in the revenue management, even the farming system being continued. The most important innovation was the appointment of Government talátis or accountants in the villages. Power was taken for the settlement of claims to rent-free lands (1814) and political pensions (1815), and arrangements were made for the collection of the customs and the control of the liquor (1816) and opium traffic (1818). Special provision was made for the encouragement of irrigation (1813). In 1817, territory was added to the districts of Kaira, Broach and Surat. The Bombay Government wisely attempted no sudden change, but the weakness of the police in the interior of the districts was a serious defect in the system. In 1818, therefore, the powers of district magistrate were transferred from the judge to the collector and the duties and powers of the several grades of police officers were laid down. In spite of a severe famine in 1812, the British districts in Gujarát flourished exceedingly during this period.

Dakhan, 1803—1819.

3. Soon after Bájiráo's restoration, the Dakhan suffered severely from famine (1804) and was infested by bands of plunderers. More serious disorders were prevented by the presence of the British subsidiary force. Bájiráo gave himself up to hoarding money and avenging himself on the Jághirdárs who had opposed him. The country was ruined by the farming of the revenue and the corruption of the courts of law. About 1812 Bájiráo began to think of shaking off British control. He sent agents to Sindia and to Nágpur, revived his claims on the Gáikwár, and raised troops both openly and secretly. The murder of the Gáikwár's minister led the Governor-General to insist upon the conclusion of the treaty of Poona, which excluded the Peshwa from Gujarát (1817). At this time the war against the Pindháris in Central India had just begun and all the Maráthá States were greatly excited. At last Bájiráo, after long vacillation, attacked the British force at Kirkee near Poona, but was defeated and became a hunted fugitive (1817). He surrendered in 1818 and retired on a pension to Bithur near Cawnpore. His dominions were quickly reduced and annexed. Out of them a Kingdom was created for the Rája of Sátára between the Varna and the Nira rivers, and Chikodi and Manoli were granted to Kolhápur. The rest of the Dakhan was placed under a British Commissioner (1819).

Konkan, 1803—1819.

4. Though the Sidi and Angria were no longer dangerous, piracy was still rife on the coast, until the English obtained Málvan from Kolhápur and Vengurla from the Sávants (1812). A great increase in the trade of Bombay followed the abolition of the Company's monopoly (1813).

Mountstuart Elphinstone, 1819—27.

5. The Peshwa's rights in the Northern Konkan were ceded to the British in 1817 when the district now known as Thána was formed. The coast south of the Panvel creek was conquered in 1818 and formed the district of the South Konkan (1819). Both these districts were organised on the same system as prevailed in Gujarát.

6. The frame-work of the system that is still in force in the Presidency dates from the Governorship of Mountstuart Elphinstone, many of whose reforms are now part of the general public law of India. His aim was to govern on the best native lines, avoiding changes until the people should be fitted for them by education. He adopted the existing division of duties between the judge and the collector, but increased the powers of the former and abolished the Provincial Court, setting up in its place a new Sadar Adálat distinct from the Governor and Council (1820). He took steps to ascertain and record native customary law, and codified the whole of the existing regulations, to which he added a penal code and other useful enactments (1827). In revenue matters his sympathies were with the Ryotwári system, but he would make no hasty settlements without full enquiry. He employed natives freely in positions of trust, and laid down a liberal policy for the encouragement of education both in English and in the Vernaculars (1826). In Gujarát he maintained the old arrangements, but posted a separate Political Agent to Káthiáwár (1822). The full system of courts was not at once introduced into the Dakhan, where the revenue and criminal work of Khándesh, Nagar, Poona and Dhárwár was done by British officers under the supervision of a Commissioner, while civil cases were mostly tried by Panchávats. The robbers of Khándesh were drafted into Outram's Bhil Corps (1824-35): the grosser abuses of Bájiráo's days were stopped; and the peasantry

were contented and orderly. The Bráhmans and the soldiery felt the loss of their former chances of distinction and plunder, but there was no open rebellion, except at Kittur, where the Collector of Dhárwár was murdered (1824) and that outbreak was quickly put down. Chikodi and Manoli, however, were resumed from the Kolhápur State on account of mismanagement (1827). In 1827 Khándesh, Poona and Nagar were brought under the regulations, and the Judges and District Magistrates were given the wide powers which they still exercise. The Bhor Ghát road linking Bombay to Poona was begun at this time. In Bombay, the Recorder's Court was replaced in 1823 by the Supreme Court, which busied itself chiefly in quarrels with the executive. Municipal affairs were managed by the Court of Petty Sessions.

Transition period, 1827—1848.

7. Elphinstone's Governorship was followed by a period of retrenchment and slower progress. The legislative powers of the local Government were withdrawn (1833) and twelve Governors succeeded each other in the space of 21 years (1827—1848). The Presidency was enlarged by the cession of the hill station of Máhábleshwar (1839), by the lapse of Nipáni, Chinchni and Mándvi (1889), Kolába (1840), parts of Miraj (1842 and 1845), Tásgaon and the State of Sátára (1848), by the occupation of Aden (1839), and above all, by the addition of Sind (1847) on the retirement of Sir C. Napier from the Governorship of that province. The Bombay army took part in the first Afghán war (1838—1842), but the Presidency itself was for the most part peaceful, though Koli robbers were troublesome on the Ghats down to 1830, the Mahi Kántha was disturbed in 1833, and a small rebellion took place at Nipáni (1840-1841) after the lapse of the State. In Kolhápur a more dangerous rising took place (1843-1845) in which the Sávants of Vádi took part, and which led to strained relations with the Portuguese at Goa owing to their harbouring of the rebels (1845). Otherwise the chief events affecting Native States were the establishment of a Criminal Court for Káthiáwár (1831), and the deposition of the Rája of Sátára for intrigues against the British power (1839). The Gáikwár's misgovernment (1832-1841) was dealt with less drastically. Little change was made in the form of the administration beyond the grant to the Sessions Judges in Gujarát of the same powers as in the Dakhan, and the consequent abolition of the circuit system (1830); and the appointment of a second Revenue Commissioner for the north of the Presidency (1842). In 1847 a third Commissioner was appointed for Sind. Provision was made for the better performance of the duties of hereditary village and other officers (1843) and for the abolition of transit (1839) and town duties (1844). A Board of Education was formed in 1840, and the Grant Medical College was founded in 1845 for the training of native medical practitioners. Dhárwár was brought under the regulations in 1830, and the districts of Belgaum (1836) and Sholápur (1838) were formed.

8. The British Government, however, had the defects of its qualities. Taxation was lighter than before, but more strictly exacted. Criminal trials were more regular, but punishment was less certain. Now that order reigned, more land was tilled and trade was safer, but for that very reason there followed a great and general fall of prices, which increased the pressure of the land tax. In Gujarát and Thána the situation was met by a gradual extension of the Ryotwári system with lower rates of assessment. In the Dakhan a premature attempt at a new settlement, based on imperfect information, led to gross abuses on the part of native officials, decreased cultivation and emigration to Native States. The new rates were at once reduced, and very careful enquiries, beginning in 1835, led to the formulation in 1847 of principles which have since been applied throughout the Presidency, and are still the basis of the Bombay Land Revenue system. The operations of the new survey generally resulted in a reduction of assessment, and there ensued a period of great agricultural prosperity.

9. The East India Company ceased to be a trading Corporation in 1833, but the commerce of Bombay continued to grow with the development of Steam Navigation. The Bombay Chamber of Commerce was formed in 1836, regular monthly mails to Europe were started in 1838, and the Bank of Bombay was opened in 1840. Finally in 1844 the G. I. P. Railway was projected, although its construction was not begun till 1850.

Lord Falkland, 1848—1853.

10. Under Lord Falkland the peace of the Presidency was unbroken, but a portion of the Khairpur territory was confiscated as a punishment for the forgery of a treaty (1852); and relations with Baroda continued unsatisfactory. In Sind regular Civil and Criminal Courts were set up (1849), and the Eastern Nára Canal was begun (1853). In Gujarát, the Panch Maháls were leased from Sindia (1853). In the Dakhan the Revenue Survey had brought to light many cases of lands held rent-free without authority, and the Inám Commission was appointed to inquire into all such claims (1852). The public health had hitherto been treated as a matter of Police, but now began to be entrusted to Municipalities (1850). The opening of dispensaries was encouraged by grants-in-aid (1852). The control of the Police was transferred from the Sadar Adálat to Government in 1852.

Lord Elphinstone, 1853—1860.

11. Under Lord Elphinstone the Presidency passed through the crisis of the mutiny without any general rising. Outbreaks among the troops at Karáchi, Ahmedábád and Kolhápur were quickly put down, and two regiments disbanded (1857), and the local rebellions in Gujarát, among the Bhils and in the Southern Maratha Country, lacked concert and cohesion. The landholders had been alarmed by the inquiries of the Inám Commission, and by the free use of the doctrine of lapse, and the classes who had lost by British rule thought they saw a chance of shaking it off. They had, however, no leader, and local conspiracies were foiled by the firmness and vigilance of the officers on the spot. The most dangerous rebel, Tantia Topi, was repeatedly defeated by a Bombay field force under Sir Hugh Rose and was finally headed off from Gujarát

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and hunted down in 1859. These disturbances did not check the progress of the Presidency. Education, especially in primary schools, received a great impulse from the organisation of the present Educational Department (1855), and the foundation of the Bombay University (1857). New railways were begun in Sind (1858) and Gujarát (1860), and the mail service to Europe became fortnightly (1855). The development of manufacturing industry began with the opening of the first cotton mill at Bombay in 1857. Lord Elphinstone did much for the water-supply and drainage of Bombay City, which he placed in the hands of three Municipal Commissioners (1858). A beginning was made in the settlement of the powers of the Káthiáwár Chiefs (1860), but the Government of India took into their own hands for a time (1854-1860), the management of relations with Baroda.

Sir George Clark, 1860—1862.

12. The Presidency passed from the government of the Company to that of the Crown in 1858. The local Legislative Council was re-established during the brief administration of Sir George Clark (1860—1862).

Sir Bartle Frere, 1862—1867.

13. Under Sir Bartle Frere agricultural prosperity reached its highest point, owing to the enormous demand for Indian cotton in Europe during the American Civil War (1861—1865). The wealth thus poured into the country led to an extraordinary epidemic of speculation, known as the "Share Mania" (1864-1865), which ended in a serious commercial crisis and the failure of the Bank of Bombay (1866). But the peasantry on the whole gained more than they lost, and in the long run the trade of Bombay was not seriously injured. In Sind a separate Judicial Commissioner was appointed (1866), and settlement work and canal clearances were pushed on. In the Presidency the present High Court was formed by the union of the Supreme Court and the Sadar Adálat (1862). Provision was made for the settlement of the debts of large landholders in Gujarát (1862), and the uncertainty and alarm caused by the work of the Inám Commission were put an end to by the offer of a summary settlement to the holders of rent-free estates (1863). The principles of the survey settlements were, moreover, embodied in a formal enactment (1865). The districts of Sátára (1863) and Kaládgi (1864) (now Bijápur) were formed out of the old Sátára State, and the district of Kánara was transferred from the Madras Presidency to that of Bombay (1862). Sir Bartle Frere's best monuments, however, are his public works. By imposing a local fund cess and obtaining grants from the Government of India he was enabled to cover the Presidency with a network of roads. He encouraged in every way the completion of the great trunk lines of railway, and with the funds obtained by the demolition of the town walls (1862) he began the magnificent series of public buildings that now adorns Bombay. In his time also large sums were expended on public improvements by private donors and by the Bench of Justices, who were placed in charge of Municipal affairs in 1865. He also gave great encouragement to education, to which one-third of the local fund cess was and still is devoted.

Sir Seymour Fitz-Gerald, 1867—72.

14. The Governorship of Sir Seymour FitzGerald was notable for the reorganization of the district and village Police (1867) and for the establishment of the present system of Civil Courts (1869). The administration of the local funds was placed in the hands of district Committees (1869), and a Municipality with an elective element was constituted for Bombay City (1872). In Sind progress was made with new canals and with the construction of the Indus Valley Railway. In the Presidency Government had to deal with a religious rising among the Naikdás of the Panch Maháls (1868) and with a rebellion against the Chief of Janjira (1870). The failure of the rains in 1868 caused some distress in Gujarát and the Northern Dakhan, and about Rs. 6,30,000 were spent upon measures of relief. In the following year Násik and Broach were raised to full districts.

15. The Bombay Government obtained partial control over their expenditure under the provincial contract of 1872, but the system was not yet fully developed.

Sir Phillip Wodehouse, 1872—1877.

16. The leading events of Sir Phillip Wodehouse's Governorship were the crisis at Baroda (1873—1875) and the beginning of the famine in the Dakhan (1876-1877). But to this time also belong the creation of the Bombay Port Trust (1873), better provision for the establishment and working of District Municipalities (1873), and for the settlement of the claims of hereditary officers (1874); the reorganization of the Salt Department (1873); measures for the relief of encumbered estates in Sind and Gujarát (1876-1877) and the exemption of certain revenue matters from the jurisdiction of the Civil Courts, a measure which caused a somewhat heated controversy (1876). Fresh trouble in Janjira led Government to appoint a Kárbhári to manage the State (1877), and two outbreaks of dacoity occurred among the Kolis of the Ghats (1874 and 1877). Malhárrao Gáikwár was tried by a special commission for misgovernment and for an attempt to poison the Resident, and was found guilty on the first count and deposed, after which the State was administered by a regency under the direct control of the Government of India (1875). In the Dakhan the peasantry had fallen into debt, owing to the bad season of 1868-1869 and the ease with which they could raise money on their transferable holdings. Their creditors, wishing to forestall the action of the Limitation Act (1871), brought pressure to bear, which led to numerous riots and outrages upon money-lenders (1873). The facts were inquired into by a special commission, but before any action was taken on their report, the monsoon of 1876 failed and the great famine set in. It was severe throughout the Dakhan and intense in the south-eastern districts, where the movement of supplies was hampered by the absence of railways. It was met by the employment of the able-bodied to the number of 285,000 on large public works and by the grant of gratuitous relief in the villages. The monsoon of 1877 was again irregular, and was followed by epidemic fever and a plague of rats (1878). Relief measures were not discontinued until 1879, and cost 128 lákhs of rupees;

Sir Richard Temple, 1877—1880.

yet it is supposed that 800,000 persons died in the famine. The direct result of the famine was the construction of new railways (Dhond and Manmad, Hotgi-Gadag and Londa-Margao) and irrigation works (Nira and Gokák Canals) in the Dakhan, and the creation of Government forests on a large scale (1878 ff) for the purpose of improving the rainfall and securing the supply of wood. Action was also now taken on the report of the Dakhan Riots Commission, and a measure passed to protect agriculturists against the grosser forms of fraud (1879). The Excise Department was also reorganized (1878) and the land revenue laws reduced to the form of a code (1879). Towards the end of the period of distress the Dakhan was disturbed by bands of Rámoshis under a Bráhman leader who had been a Government clerk (1878-1879). On the outbreak of the Afghan war (1879) the Presidency was called upon to furnish supplies and transport on a large scale.

Sir James Fergusson, 1880—1885.

17. The leading measure of Sir James Fergusson's Governorship was the reconstitution of the Local Boards and Municipalities with a greater recognition of the elective element (1884). In Sind a staff of Village officers was organized (1881), and the present system of irrigation settlements was introduced, under which the assessment depends upon the means of irrigation used. In Cambay (1882) a peaceful rebellion took place against the measures of the Diván who was removed for a time and quiet was apparently restored. In 1884, after the Egyptian withdrawal from the Soudan, the Somali Coast was occupied by troops from Aden. The trade of the Presidency was fostered by a Customs union with Portugal (1880) and the cotton industry flourished, 26 new mills being opened between 1880 and 1885.

Lord Reay, 1885—1890.

18. The Governorship of Lord Reay was chiefly notable for the reconstruction of the Bombay City Municipality, again on a more popular basis (1888), for the great encouragement given to private enterprise in education by the system of grants-in-aid, which had been recommended by the Education Commission (1883), and for the impetus given to technical education by the opening of the Victoria Jubilee Technical Institute for the training of Mill-foremen and Engineers (1888). The peace of the Presidency was broken only by an outbreak among the low caste Talavyas of Broach (1885). The cotton industry flourished and trade was good, especially in Karáchi, which was becoming the chief outlet for the exports of the Punjáb. Railway extension was pushed on in Káthiáwár and the Southern Dakhan, but from 1887, owing to imperial needs, a stringent policy of retrenchment hampered administrative improvements, though the working of the Forest and Excise Departments were carefully enquired into and a measure was passed for the improvement of village sanitation (1889). The trial of charges of bribery and borrowing money against a Revenue Commissioner, who was dismissed the service on the latter charge, absorbed public attention in 1888-1889.

Lord Harris, 1890—1895.

19. The leading events of Lord Harris'Governorship were the enlargement of the Legislative Council under the Indian Councils Act of 1892, and the series of riots arising out of disputes between Hindus and Muhammadans that took place at Bombay and other places in 1893-1894. It was a time of financial pressure and depression in trade. In no year of the five were the crops above the average, and in one (1891-1892) famine conditions prevailed in Bijápur and parts of the neighbouring districts. Liberal grants of Takávi were the chief measure of relief. The provincial contract of 1892 was still more unfavourable than its predecessor, and the Government of India twice called upon the Bombay Government for contributions out of balances. The mill industry began to feel Japanese competition about 1890. The new Factories Act came into force in January 1892, and the cotton excise duty was imposed in 1894. The money-market was much disturbed until the mints were closed in 1893; and the new import tariff came into force in March 1894. The local Government passed measures for the consolidation of the Salt Laws and the regulation of the District Police (1890), and, in spite of all financial difficulties, the Hyderábád Umarkot Railway was begun, and the District Police re-organised. Work was also begun on the Jamrao Canal.

20. In 1890—1892 Hindu feeling was much excited by discussions on the Age of Consent Bill, and by the preaching of the Cow protection Societies, which last led to the riots of 1893-1894. In Bombay the riots lasted for three days and had to be put down by Military force. In 1890 there was a second bloodless revolution at Cambay, which ended in the final withdrawal of the obnoxious Diván; and in 1892 a troublesome gang of Miáná outlaws was put down in Káthiáwár.

Lord Sandhurst, 1895—1900.

21. Under Lord Sandhurst's Governorship the Presidency met with more severe trials than ever. The rains of 1895 were below the average, and the failure of those of 1896 caused famine throughout the Dakhan in 1896-1897. Up to 438,000 persons were daily employed on relief works at a cost of Rs. 128 lákhs. After one poor (1897) and one fair (1898) season, there followed the great famine of 1899-1900, which desolated Gujarát and the Northern and Western Dakhan, and was accompanied in its later stages by a virulent outbreak of cholera. In July 1900 the number of persons on relief works rose to 1½ millions, and that of recipients of gratuitous relief to half a million. The loss of human life and of cattle was enormous, in spite of the relief measures, on which, down to the end of March 1900 alone, Rs 115 lákhs were spent directly, and Rs. 40 lákhs in the form of advances to landholders.

22. Plague appeared in Bombay City in September 1896, and has since spread by land and sea to every part of the Presidency. It was dealt with at first chiefly by disinfection and hospital treatment, but isolation of the sick was not enforced in Bombay for reasons of policy,

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and in the districts for want of legal powers. After the passing of the Epidemic Diseases Act in February 1897, much more stringent segregation was enforced under European supervision, detention camps for travellers were established, and the hospitals were staffed with doctors and nurses from England. In some places inoculation proved useful, but the measure most generally effective was the evacuation of infected localities. The inspection of sea-going passengers was successful in preventing the conveyance of infection to Europe. But the plague measures caused great alarm and discontent, and were violently opposed in 1898 at Sinnár and Bombay. When the most stringent and costly measures failed to stamp out the disease, it became clear that a permanent plague policy could not be based on them. From October 1898, therefore, more use was made of Native Volunteer Agency, the restrictions on travelling were relaxed, and the discretional relief fund was started to help the poorer sufferers. The enquiries of the Plague Commission (1898-1899) resulted in still further relaxations, which came into force under the orders of the Government of India from July 1900. The people are now generally accustomed both to the plague and to the plague measures, and accept both with resignation. Down to the end of October 1902 over 531,000 deaths have been reported in the Presidency as due to plague.

23. An immediate result of the plague was the creation of a Board of Trustees for the improvement of Bombay City, which took office in November 1898, with large powers for clearing insanitary areas and laying out new streets.

24. Riots at Porbandar and Dhulia in 1898 showed that Hindus and Musalmans were not yet reconciled. Moreover, bitter feelings against Government found vent in the Native Press, in an attempted strike against the payment of revenue (1896-1897), and in disturbances arising of forest grievances in Thána (1896), and culminated in the murder of the Chairman of the Poona Plague Committee and another officer by a band of Bráhman fanatics in June 1897. The disaffection was quelled by the prosecution of several newspapers for sedition, the removal from Poona of two leading Bráhmans under Regulation XXV of 1827, and the arrest and punishment of the murderers. Of a more normal kind were outbreaks of dacoity in Sind, Káthiáwár and Belgaum (1895-1896) and among the Kolis of the Ghâts (1898-1899), as well as displays of religious fanaticism in Sind and Kaira (1897-1898).

25. Trade and industry suffered very severely during these years. The Bombay Government exhausted its balances in 1897, and since then has been dependent on grants from the Government of India. Rigid economy was enforced in every department, and all large schemes of improvement were postponed. Still hopeful signs were the undertaking of feeder railways by private enterprise (1895—1897) and the opening of the Jámrao Canal in Sind (1899).

Lord Northcote, 1900—1902.

His Excellency Lord Northcote, the present Governor of Bombay, took charge of his office on 17th February 1900.

1. The Government of the Bombay Presidency is formed on the model of the governing body of the old Surat Factory, which was for many years the chief of the settlements of the East India Company in the East. It was composed of a President and eight Councillors, of whom five only were to be constantly resident. The whole body was called the President in Council and the Factory a Presidency, terms which have spread over India.

2. The existing Government of Bombay consists of a Governor as President, and two ordinary Civil Members selected from the Covenanted Civil Service.

3. This body forms the Executive Government or Governor in Council of the Presidency, but for legislative purposes the Council is enlarged by the addition of certain official and non-official Members, and is then composed of the Members of the Executive Council, the Advocate General or officer acting in that capacity, and certain Additional Members not less than eight or more than twenty in number, nominated by His Excellency the Governor. Of these additional Members at least one-half must belong to the non-official community. Their term of office is two years. The privilege of recommending a Member for nomination by the Governor to the Council as constituted under the Indian Councils Act of 1892 is now given to each of the following Bodies or Associations:—

(1) The Corporation of Bombay.
(2) The Municipal Corporations of the Northern Division.
(3) The District Local Boards of the Southern Division.
(4) The District Local Boards of the Central Division.
(5) The Sardárs of the Dakhan.
(6) The Jághirdárs and Zamindárs of Sind.
(7) The Chamber of Commerce, Bombay.
(8) The Senate of the University of Bombay.

Of this Council also the Governor is President. In his absence the Senior Ordinary Civil Member of Council presides. The non-official Additional Members of this Council have the privilege of recommending one Member for the seat of an Additional Member of the Council of the Governor General of India.

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4. With a view to diminish the pressure of business, advantage is taken, in the discharge of the executive and judicial functions, of the special acquirements of the different members of the Government. Thus, for example, the Governor may dispose of the business of the Marine, Ecclesiastical, Public Works, Political (except Judicial appeals) and Educational Departments. The work of the Judicial Department in which is included all questions concerning the City and District Police; that of Judico-Political appeals; and that of the General Department which covers many subjects, the most important being Medical, Educational, and Municipal, may be allotted to the Member of the Board ordinarily entitled the Judicial Member: whilst the responsibility for the efficient administration of Revenue, Financial and Railway affairs may be accepted by the Revenue Member. Questions which present no special difficulty are finally disposed of by the Member in charge of the Department in which they occur; on more important questions and on questions involving expenditure of any great amount the opinion of a second member is sought, and should there be a difference of opinion or should any case of peculiar difficulty or general public interest arise, the matter is settled according to the balance of opinion either as recorded by the different members or after discussion at a meeting of the Executive Council.

5. In matters before the Council in their judicial capacity and in the making, repealing, and suspension of the ordinary rules of civil administration, the opinion of the majority is decisive: the powers of each member being equal and the President having no casting vote. But in any grave political emergency affecting the safety or tranquillity of British rule, the Governor can set aside even the unanimous opinion of his counsellors, and his orders in such case, though he alone is responsible for them, operate as the orders of the entire Council.

6. All papers connected with public business reach Government through the Secretariat, where they are properly arranged and submitted to the members in charge of the departments to which they belong, together with all available material for coming to a decision in the shape of former correspondence, acts or resolutions relating to the same or an analogous subject, and also with the recorded opinions of the Secretary or Under Secretary in the departments in question or of both. The strength of the Secretariat is as follows:—For the Revenue and Financial Departments a Secretary and Under Secretary, who are Covenanted Civilians, and an Assistant Secretary, who is an Uncovenanted officer; in the Political, Judicial, Legislative, and Special Departments a Covenanted Secretary and Under Secretary, the latter of whom also officiates as Secretary to the Legislative Council, and two Uncovenanted Assistant Secretaries; in the General, Eductional, Marine and Ecclesiastical Departments a Secretary who is a Covenanted Civilian and an Uncovenanted Assistant Secretary; in the Public Works Department a Secretary and an Under Secretary who are either Royal or Civil Engineers, and an Uncovenanted Assistant Secretary; and in the Railway Department a Secretary and Under Secretary, three Deputy Consulting Engineers, besides the Under Secretary who is also a Deputy Consulting Engineer, all of whom may be Royal or Civil Engineers, and an Uncovenanted Assistant Secretary. The senior of the three Civilian Secretaries to Government is entitled the Chief Secretary. The Separate Department is under the Chief Secretary who is assisted by the Under Secretary, Revenue and Financial Departments.

Political.

7. The territories under the rule of Native Princes and Chiefs extend over an area of 65,836 square miles, or more than one-third of the entire area of the Presidency. The variety of the relations which, under the terms of the several treaties, subsist between the British Government and the rulers of the different States, and the general superintendence exercised by Government as the Paramount Power, necessitate the presence of an Agent or representative at the principal Courts. The smaller and less important States are either grouped together under the general supervision of a Political Agent, or are looked after by the Collectors of the districts within the local limits of which they may happen to be situated. The position of the Agent varies, roughly speaking, with the importance of the State. In some cases he does little more than give advice and exercise a general surveillance. In other cases Agents are invested with a direct share in the administration; while States, in which the ruler is a minor, are directly managed by Government officers. In connection with the administration of the two last-named classes of States a large amount of judicial work devolves on the Governor in Council, in criminal cases as a Court of Reference and Appeal, and in civil matters as a Court of Appeal. The supervision of all the Native States in this Presidency rests with the Government of Bombay, with the exception of that of Baroda, where the Resident Political Officer is an Agent to the Governor General.

Judicial.

8. The administration of justice throughout the Regulation Districts of the Presidency is, under the Letters Patent of 1865, entrusted to the High Court. This Court, consisting of a Chief Justice and six Puisne Judges, has both ordinary and extraordinary civil and criminal jurisdiction, and exercises original and appellate functions. In addition, the appellate Judges of the High Court supervise the administration of justice by the different Civil and Criminal Courts of the Regulation Districts. Ordinary original jurisdiction is exercised in matters, both civil and criminal, which arise within the limits of the Town and Island of Bombay. In virtue of its extraordinary jurisdiction the High Court may in civil cases remove and itself try any suit brought in any Court under its superintendence, and may in criminal cases exercise jurisdiction over all persons residing in places within the jurisdiction of any Court subject to the superintendence of the High Court.

In civil matters the High Court is a Court of Appeal—

From the judgment of one Judge of the High Court, or from the judgment of any Division Court the members of which are equally divided in opinion, and do not amount in number to a majority of the High Court.

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From the decisions, except in cases where no appeal lies, of all Civil Courts under its superintendence.

In criminal matters the High Court is, subject to the same limitation, a Court of appeal from the decisions of all Sessions Courts. It is also a Court of Reference and Revision in cases decided by the Criminal Courts subject to its appellate jurisdiction.

The High Court also exercises the functions of an Insolvency Court, and possesses the civil and criminal jurisdiction of an Admiralty and Vice-Admiralty Court in prize causes and other maritime questions arising in India. It has also been invested with testamentary jurisdiction, and has matrimonial jurisdiction over Christians. One of the Judges of the High Court officiates as Judge of the Párs Matrimonial Court. Matrimonial decrees by District Courts require confirmation by the High Court.

Sind Sadar Court.

9. In the Province of Sind the Sadar Court is the highest Court of civil and criminal appeal, and the High Court at Bombay has no jurisdiction in or over the Province except as regards (i) its powers under the Administrator General's Act, 1874; (ii) probates and administrations; (iii) decrees in matrimonial cases, and (iv) European British subjects. The District Court of Karáchi is a Colonial Court of Admiralty from which an appeal lies to the Sadar Court and ultimately to His Majesty in Council.

District Courts.

10. The administration of civil justice is, in addition to the High Court in the Regulation Districts, and the Court of the Judicial Commissioner in Sind, entrusted to four grades of Courts — those of District and Assistant Judges and of two classes of officers styled, respectively, First and Second Class Subordinate Judges. There are at present 16 District Judges, 1 Joint Judge, 2 Assistant Judges, F. P., and 4 Assistant Judges. All these officers are members of the Indian Covenanted Civil Service except 2 District Judges, 1 Assistant Judge, F. P., and 1 Assistant Judge; the first three of whom belong to the Statutory Service and the latter to the Bombay Provincial Civil Service. There are 15 First Class and 88 Second Class Subordinate Judges in the Presidency proper. In the Province of Sind there are 2 First Class and 11 Second Class Subordinate Judges. Any Subordinate Judge being a member of the Provincial Civil Service may be appointed an Assistant Sessions Judge by the Local Government. This power has hitherto been exercised in two cases. For work under the Dakhan Agriculturists' Relief Act there are entertained 1 Special Judge and 2 Subordinate Judges. The jurisdiction of the different District and Subordinate Civil Courts, as laid down by Act XIV of 1869, is given below. A Subordinate Judge of the Second Class has original jurisdiction in suits of less than Rs. 5,000 in amount or value. He has no appellate powers. The jurisdiction of a Subordinate Judge of the First Class extends to all original suits of a civil nature, except suits in which Government, or any officer of Government in his official capacity, is a party. An officer of this class may be (and some of them are) invested with appellate jurisdiction. A Subordinate Judge of the First Class may be invested with the summary powers of a Small Cause Court Judge for the trial of suits not exceeding Rs. 1,000 in value and a Subordinate Judge of the Second Class with similar powers in suits up to Rs. 200. An Assistant Judge may try such original suits of less than Rs. 10,000 in amount or value as the District Judge refers to him for decision. When invested with appellate jurisdiction the powers in appeal of an Assistant Judge are the same as those of a District Judge. The officer who presides over the principal Court of Original Civil Jurisdiction in each district is called the District Judge. He exercises a general control over all Courts within his charge, and refers for decision to the Assistant Judge such suits as he deems proper. He has also to arrange for the guardianship of the persons and the management of the property of minors and lunatics, and he hears and decides a variety of petitions regarding certificates of heirship, certificates to collect debts due to deceased persons, questions under the Land Acquisition Act, suits between Christians for the dissolution of marriage or judicial separation, suits for winding up partnership under the Indian Contract Act, applications for probate and letters of administration, and applications under many other Acts. The Judges of Surat and Poona are Judges of the Párs Matrimonial Courts in those towns. The Judge of Poona, as Agent for Sardárs in the Dakhan, decides, under Regulation XXIX of 1827, cases in which certain gentlemen of high rank are interested. In certain parts of the Presidency, where the burden of judicial work is especially heavy, it has been found necessary to employ the services of an additional Judge. This officer, under the title of Assistant Judge with full powers, has all the powers and jurisdiction of a District Judge in civil-judicial matters, and nearly all the administrative powers. His powers in criminal matters will be noticed below.

Appellate Jurisdiction.

11. In cases which do not exceed Rs. 5,000 in amount or value an appeal lies, on both matter of fact and of law, from the decree of an Assistant or Subordinate Judge to the Court of the District Judge. From the decision of the District Judge in appeal, a second appeal lies to the High Court on points of law. The appeal from the decision of a Subordinate or Assistant Judge in cases exceeding Rs. 5,000 in value, and from the decision of the District Judge in all original suits, lies to the High Court. Decisions in appeal of Subordinate or Assistant Judges invested with appellate powers have the same force, and are subject to the same rules as those of the District Judge. From the decisions of the High Court a further appeal lies as of course to His Majesty in Council only when the property in dispute is of the amount or value of Rs. 10,000 or upwards, but appeals are also allowed in cases of special importance or involving grave questions of law.

Small Cause Courts.

12. For the more easy recovery of small debts and demands, Courts, invested with summary powers, have been established in the City of Bombay, and in six towns in the

mofussil, viz., Ahmedábád, Nadiád, Poona, Surat, Broach and Karáchi. The Judges of the Mofussil Small Cause Courts have jurisdiction in money suits, within the towns where the Courts are situated, up to Rs. 500 in value, and their decisions are final, save in so far as they are subject to reference of points of law to the High Court, or to the supervision of the High Court in its extraordinary jurisdiction. The jurisdiction of these Courts may be extended to Rs. 1,000 and they can also be invested with appellate jurisdiction. The Registrars of the Small Cause Courts at Poona and Nadiád have also power to decide cases up to the value of Rs. 20. The Presidency Small Cause Court has cognizance in suits not exceeding Rs. 2,000 in value arising within the Island of Bombay.

Scheduled Districts.

13. The Scheduled Districts are those which "have never been brought within, or have from time to time been removed from, the operation of the general Acts and Regulations and the jurisdiction of the ordinary Courts of Judicature," and consist, so far as this Presidency is concerned, of the Province of Sind, Aden and its dependencies, and the Mewási Chiefs' villages. The Panch Maháls District was excluded from the schedule in 1885. The estates formerly comprised in the Peint State were excluded in 1895. In Sind the judicial system nearly resembles that of the regulation portion of the Presidency. In Aden and its dependencies the Resident has rather more extensive powers than a District and Sessions Judge, but his decisions are in certain cases subject to revision by the High Court at Bombay. His assistants are usually invested with inferior civil and criminal jurisdiction. The Resident's Court is also a Colonial Court of the Admiralty. In the Mewási villages the Collector of Khándesh is ex-officio Political Agent, and his Court has jurisdiction in all civil matters subject to appeal to the High Court. As a Magistrate he has powers to award imprisonment up to five years and fine subject to revision by the High Court.

Village Munsifs and Conciliators.

14. The village munsifs appointed in the districts of Poona, Sholápur, Sátára and Ahmednagar under Act XVII of 1879 (the Dakhan Agriculturists' Relief Act) have, some within the limits of a group of villages and some within the limits of a single village, power to dispose of petty suits up to Rs. 10 in value. The conciliators appointed by the same Act are not Courts, but, as they now play a considerable part in the administration of justice in the Dakhan, they cannot be passed over without remark. Their functions are, on the application of either of the parties to a dispute, to endeavour to induce them to agree either to a compromise or a reference to arbitration. If the conciliators succeed, they may send the settlement arrived at, or the reference agreed to, to the Court to be filed, when it has the effect of a decree or reference to arbitration under the Code of Civil Procedure. If they fail, they grant a certificate to that effect, and either party can then seek redress in Court; but without such certificate no suit to which any agriculturist residing within any local area for which a conciliator has been appointed is a party, may be entertained in a Civil Court. There were last year 89 village munsifs and 242 conciliators, and during the same period 5,803 suits were instituted in the Courts of Village Munsifs, while 30,340 applications were made for the intercession of conciliators, in 12,816 of which it is believed that their intervention was successful.

Other Civil Courts.

15. Under Act XIII of 1889 Cantonment Magistrates may be invested with civil jurisdiction within a limit of Rs. 500. Mámlatdárs have, under Bombay Act III of 1876, jurisdiction in suits regarding immediate possession of immoveable property. Their decisions are not liable to appeal, though subject to revision by the High Court, and the party put in possession by a mámlatdár under the Act may retain it as against the defendant in the possession suit unless or until ousted by the decree of a competent Civil Court.

Bombay Judicial System.

16. The judicial branch of the service is recruited by the appointment of covenanted civilians, who have some years' experience of revenue and executive work, as Assistant Judges. After a period of training in judicial work they may either revert to the revenue or remain in the judicial branch according as the exigencies of the service require. From these trained civilians appointments to the higher judicial posts are made as vacancies occur.

Criminal Courts.

17. District and Assistant Judges under the title of Sessions Judges and Assistant Sessions Judges exercise criminal jurisdiction. But original criminal work is to a great extent disposed of by the executive district officers who, in addition to their revenue duties, are invested with magisterial powers. There are under the provisions of the Criminal Procedure Code, in addition to the High Court, four grades of Criminal Courts—those of the Magistrates of the Third, Second and First Class respectively and the Courts of Sessions. The different classes of Magistrates are invested with the following powers:—Magistrates of the Third Class with power to inflict imprisonment not exceeding one month and fine not exceeding fifty rupees; Magistrates of the Second Class with power to inflict imprisonment not exceeding six months and fine not exceeding two hundred rupees; Magistrates of the First Class with power to inflict imprisonment not exceeding two years and fine not exceeding one thousand rupees. Magistrates of the First and Second Classes may also pass sentences of whipping. In each district the chief revenue officer, under the title of Magistrate of the District, has special powers of controlling Magistrates of all classes within the limits of his executive charge. The Court of the Magistrate of the District is also a Court of appeal from the sentences of any Magistrate of the Second or Third Class within the district. First Class Magistrates, not being District Magistrates, may, if specially empowered by Government, decide appeals from the decisions of Magistrates of the Second and Third Classes, and both First and Second Class Magistrates may, under the title of Sub-Divisional Magistrates, exercise, if so empowered, many of the functions of the Magistrate of the district within the sub-division of the district which is placed under their charge, remaining, however, subject to the control of the District Magistrate.

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18. The total number of Magistrates of all classes is 802, of whom 24 are District Magistrates, 4 Presidency Magistrates, 199 Magistrates of the First Class, 285 Magistrates of the Second Class, and 292 Magistrates of the Third Class.

19. Under the general title of Courts of Sessions three grades of officers are included—the Sessions Judge who is the District Judge, the Additional Sessions Judge who is the Assistant Judge with full powers, and the Assistant Sessions Judge who is the Assistant Judge. The Sessions Judge is empowered to try any offence, and to pass upon any offender any sentence authorized by law, subject, in the case of a capital sentence, to confirmation by the High Court. The Additional Sessions Judge can only try cases which by general or special orders of Government he is empowered to try, or which are made over to him by the Sessions Judge, but, except in the matter of revision, he has equal powers on the bench with the latter. The Assistant Sessions Judge can only try such cases as the Local Government may direct or as are made over to him by general or special order of the Sessions Judge. An appeal against sentences of transportation for any term of imprisonment for more than four years passed by an Assistant Sessions Judge lies to the High Court; against all other sentences an appeal lies to the Court of Sessions, while in no case can the sentence of an Assistant Sessions Judge exceed imprisonment or transportation for seven years.

Police.

20. The police force consists of two distinct bodies, the stipendiary and the village police. The stipendiary force is divided into grades, the members of which, beginning as constables on a monthly pay of Rs. 7, have the opportunity of becoming head constables, chief constables or even inspectors. The chief constable has charge of a táluka, and the inspector of a division of a district, or even more, on a monthly pay varying from Rs. 100 to Rs. 250. It is not the purpose of Government to give to the stipendiary police a regular military character, and a portion only are armed, to whom the duties of guarding jails and lock-ups and the escort of prisoners and treasure are allotted. In 1901, 7,724 policemen out of a total strength of 19,805 men were armed with carbines and bayonets. The knowledge of drill required from them is not very elaborate. The more purely police functions are discharged equally by members of the armed and of the unarmed branches of the force. The proportion of police to area and population of the different portions of the Presidency varies greatly, being determined by a consideration of the nature of the country, the density and character of the population, and the neighbourhood of Native States. In the Northern Division there is one policeman to every 4 square miles and to 1,072 inhabitants; in the Central Division 1 to 9 square miles and to 1,447 inhabitants; in the Southern Division, one to 9½ square miles and to 1,919 inhabitants; and in Sind, 1 to 17 square miles and—the population being sparse—to 1,126 inhabitants. Of the total Police force excluding officers 1,057 were mounted. The Bhil corps of Khándesh and Panch Maháls were absorbed in the reorganised armed police in 1894.

21. The stipendiary police are administered in accordance with the provisions of Bombay Act IV of 1890. For the purpose of control in the Presidency proper the whole force is under the Inspector-General of Police, but certain administrative powers have been reserved to the Commissioners of Divisions. In Sind the old arrangement, under which the Commissioner is the head of the Police, still continues. The executive management of the police in each district is vested, under the general direction of the Magistrate of the district, in a Superintendent of Police, who has in some cases one or more Assistants under him, and often also one or more probationers. The probationary grade of police officers has been constituted for the purpose of training young officers for the important posts of Assistant Superintendent or Superintendent. To enable them effectually to preserve the peace and prevent crime, and to conduct proceedings preliminary to trial, the Superintendents and Assistant Superintendents are invested with magisterial powers, but are limited in the use of them to the functions above specified. The police sub-division or táluka of a district is generally the same as the sub-division for revenue purposes. The Chief Constable, or Faujdár, who has charge of it, holds a position distinctly inferior to that of the Mámlatdár, but is quite independent of the latter in his executive control of the police under him, and answerable only to the Superintendent or Assistant Superintendent of Police. The regular police force allotted to each sub-division is divided into a number of outposts, each party under the control of a head constable. The members of each police guard move about from village to village within the limits of their charge, and thus a regular system of patrol is maintained throughout each district of the Presidency.

Railway Police.

22. A special police organization exists in connection with the railways of this Presidency. The police employed along each of the principal lines of rail—the Great Indian Peninsula, the Bombay Baroda and Central India, the Rajputána-Málwa and the Southern Maráthá Railways—are under the supervision of a Railway Superintendent of Police. Originally the constables and inferior officers of the railway force were members of the several districts traversed by the railway allotted for special railway duty. By this arrangement they were not, to the extent that was advisable, under the Railway Superintendent. In practice this division of power and responsibility was found to be a serious hindrance to efficiency. The system was therefore changed; the railway police were constituted into distinct bodies, looking for promotion within their own ranks, and subject to the control only of the Superintendent of Railway Police. This change has proved satisfactory. There are four Superintendents of Railway Police, one each for the Great Indian Peninsula, Bombay Baroda and Central India, Rajputána-Málwa and Southern Marátha Railways. The Inspector-General of Police has complete control over the Railway Police.

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23. The office of the Inspector-General of Police has now two special branches which deserve mention. A Criminal Investigation Branch working under an Assistant Inspector-General of Police, who is directly subordinate to the Inspector-General of Police, was organized in 1901. It consists of three Inspectors and a few subordinates whose services are employed in the detection of serious crime, the ramifications of which extend over more than one district. The system of identification of criminals by means of finger-tip impressions has been fully developed and the Central Bureau is the Criminal Identification Branch of the Inspector-General's office. The old system of anthropometrical cards is being gradually abandoned and in 1901 out of 261 criminals traced in only 5 cases were measurement cards the means of identification. The system has also been introduced into the Baroda State, and it is hoped that the Darbár will soon be in a position to agree to a regular system of interchange of impression slips.

Bombay City Police Force.

24. The total strength of the police of all ranks serving in the Town and Island of Bombay was in 1901, 2,118, of whom 83 were mounted. The whole force is under the control of the Commissioner of Police for Bombay, who is assisted by a Deputy Commissioner and nine Superintendents. The total number of Europeans employed was 91 in 1901. The Municipal Corporation of Bombay pays a fixed share of the charges.

Village Police.

25. Under the provisions of Bombay Act VIII of 1867 the village police are, subject to the control and direction of the Commissioner, administered by the different District Magistrates. It is their special duty to prevent crime and public nuisances and to detect and arrest offenders within village limits. They are not stipendiary, but receive perquisites from the inhabitants of the village or rent-free lands or small sums of money from Government. In each village the village police are under the charge of the Police Pátil, who is often, but by no means always, the person performing the duties of revenue Pátil. His duties as Police Pátil are to furnish the Magistrate of the district with any returns or information called for, and to keep him constantly informed as to the state of crime and all matters connected with the village police, and the health and general condition of the community in his village. Under a form of administration which preserves the village as the unit of collection in revenue matters, the institution of village police naturally holds an important place.

Sind Village Police.

26. There are no hereditary village police in Sind, their places being taken by the local zamindárs, who cordially and loyally give the assistance of their great influence to the police in all criminal cases; while the tracking of criminals and stolen animals by their foot-marks is a specialty with certain inferior tribes, who are partly supported by gifts from the owners of stolen animals, partly by the community and also by their own labour. The skill exhibited by these pagis, as they are styled, might almost be called a sixth sense, and is akin to the faculty developed by shepherds in Europe, who can recognise each individual out of a herd of a thousand sheep. But little or nothing has as yet been done as regards the creation of official pátils, for the simple reason that the zamindárs are far too proud to take money for their services or to place themselves in a position which would entitle the Chief Constable to demand the assistance which they now give freely when asked for. Moreover, the selection of particular wadheros to hold an official position in particular dehs, would, in parts of the country where influential zamindárs are numerous, create a feeling of discontent amongst those who were not so singled out, and the creation of a new class of hereditary office-holders is much more beset with difficulties than the conservation of those whom the Government elsewhere found in existence; besides, the present system continues to work admirably of rewarding zamindárs for service rendered by the gift of a sword or lungi occasionally. Many of the wadheros are chiefs of tribes or sub-tribes, and their influence is less local than tribal, so that it would never do to prescribe local areas in which they would be chief men. In one deh, for instance, there might be two leading men, one a Sayad and the other the chief of a powerful Baluch tribe, and the police would have recourse to either of them, according as the criminal they were in quest of was a Sindhi or Baluch. In the wild district of Thar and Párkar where the cultivators are more insignificant men, some small grants of lands have been given free at the expense of the Cess Fund to the amount of Rs. 1,383 per annum, and there are some other small grants aggregating Rs. 9,458 throughout the whole province, dating mostly from Sir Bartle Frere's time and given more as a compliment and in recognition of high position than as pay for service rendered. These old grants have not been added to of recent years. Practically, therefore, the creation of hereditary pátils in the Dakhan sense of the word has not been and is not likely to be attempted. The wadheros consider it such a privilege to aid the Sarkár, that the possession of an hereditary watan would be as little an incentive to them to assist the police, so far as the honour of the appointment is concerned, as that of a poor-law-guardian would be to a country squire in England.

27. The humbler pagis, however, are in different case. The bulk of the zamindárs are no longer wealthy, and cannot fee them as they were wont to do, and the tendency is for the pagis themselves to think more of their own means of livelihood as agricultural labourers or tenants than as the guardians of the property of their neighbours, and it has long been recognized that they should receive proper pay, which will not only recompense them for the labour and loss of time to which they are put in pursuing criminals and attending courts to give evidence, but also make them willing to keep a watch on bad characters, and report their advent and movements to the police.

Revenue.

28. The Revenue administration of the Regulation Districts of the Presidency of Bombay is carried on by the following officers acting under Government :—4 Commissioners, including

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the Commissioner of Customs, Salt, Opium and Abkári, 12 Senior and 8 Junior Collectors (including the appointments of the Collector of Salt Revenue and the Collector of Land Revenue, Customs and Opium, Bombay). The number of First and Second Assistant Collectors is fixed at 20 and 21 respectively. But of these some are employed in the judicial branch or on special duty or in Sind. In October 1902 there were 13 First, 17 Second, and a few supernumerary Assistants engaged in the Revenue Administration of the Presidency proper. All the above officers are members of the Covenanted Civil Service, with the exception of 4 who belong to the old Statutory Service. There are in addition 52 Deputy Collectors (including the Personal Assistants to the Commissioner of Customs, Salt, Opium and Abkári and to the Director of Land Records and Agriculture). They are divided into six grades, and are, with the exception of the officers above mentioned, generally in charge of district treasuries or of divisions of districts. In Sind, under the Commissioner, the administration is carried on by four Collectors and two Deputy Commissioners, about six Covenanted Assistant Collectors borne on the general list and one Statutory Civilian. Two of the Collectors belong to the old Sind Commission and two to the Covenanted Civil Service; one of the Deputy Commissioners is a Covenanted Civilian and one belongs to the old Sind Commission. There are also twenty Deputy Collectors in Sind and proposals have been made for an increase of their number by two. The appointments on the Sind Commission are being gradually absorbed into the general list.

29. The following general review of District Administration in this Presidency is reprinted from the "Annals of Indian Administration":—

"An average collectorate contains twelve tálukas or sub-divisions, each of which contains about one hundred Government villages; that is to say, villages that are not alienated and the total revenues of which belong to the State. Each village has its regular complement of officers, who are usually hereditary. The officers on whose services Government is mainly dependent are the pátil, who is the head of the village for both revenue and police purposes; the taláti or kulkarni, who is the clerk and accountant; the mhár who is a kind of beadle; and the watchman. The pátil and kulkarni either hold a certain quantity of rent-free land or are remunerated by a cash payment equivalent to a certain percentage on the collections. The mhár and watchman in common with other village servants, also hold land on more or less favourable terms as regards assessment, and receive besides grain and other payments in kind from the villagers. The other servants are the carpenter, blacksmith, potter, barber, and others whose services are necessary to the community. A village is for Government or social purposes complete in itself, and is so to speak independent of the outer world. The revenue accounts of a village are simple but complete. The survey register is the basis of them. Every occupant is given a separate receipt book in which the total amount of his holdings is entered and the pátil and kulkarni are bound, under heavy penalties, to record in it the sums he has paid. Each year what is termed the jamábandi of the village is made, at which time the total amount of revenue due from the village is made out. In point of practice this is now, as far as Government interests are concerned, a very simple business as there is little or no unoccupied land, and the jamábandi as nearly as possible represents the sum entered in the register. But it is a process that nevertheless is of considerable use and could not be safely dispensed with. In the first place it brings the Assistant or Deputy Collector in annual contact with each village in his charge and enables him to judge of its wants and requirements. It is the time at which all cultivation and other returns useful for statistical purposes can be checked. Above all it is the time at which the village accounts can best be examined, transfers of numbers verified, and such a scrutiny made as is essential to the protection of the individual occupant from fraud.

"Over each táluka or sub-division of a collectorate there is an officer termed Mámlatdár, whose salary varies from Rs. 150 to 250 per mensem. The Mámlatdár is responsible for the treasury business of his táluka. He has to see that the instalments are punctually paid by the several villages, that the village accounts are duly kept, that the occupants get their payments duly receipted, that the boundary marks are kept in proper repair, and, in fact, to see that the village officers do their work properly. He has also to look after the administration of the Local Funds, and is a Subordinate Magistrate. The system must be entirely one of check and percentage examination. A certain number of villages are appointed to the several members of the Mámlatdár's establishment, and placed under their supervision: it is his business to see by personal examination that they do their work. An Assistant or Deputy Collector is placed in revenue charge of, on an average, three tálukas. He has to travel about them during seven months in the year. He has to satisfy himself by direct personal inspection that the revenue work is being properly done; he sees that the revenue of each village is properly brought to account at the time of the annual jamábandi, nominates the village officers, judges for himself of the want of his tálukas in respect of local roads, wells, tree plantation and the like, hears appeals from the orders of Mámlatdárs, replies to references made by them, and generally supervises their proceedings. The Collector and Magistrate is placed over the whole district. He has also to travel at least for four months in the year. The Revenue Commissioners, of whom there are three, two for the Regulation Districts and the Commissioner in Sind,—exercise a general superintendence and control over the revenue administration of the Presidency. These officers are constantly on the move in their respective Divisions during the fair season. They have thus an opportunity of

judging for themselves of the requirements of the several parts of the country, of the manner in which both the revenue and police administration is being carried on and of the qualifications of the several officials. They entertain appeals from the Collectors' decisions and are the channel of communication between them and the Government. From June to October the Commissioners of the Regulation Districts reside at Poona, which is also at that season the head-quarters of the Government."

30. The above gives a very fair idea of the general system of revenue administration at present in force in the Bombay Presidency. A few changes have been made such as the introduction of local self-government in the form of partly elective Local Boards, which will be noticed below, the creation of a third revenue division, and the issue of the orders under which each Commissioner resides in his revenue division.

31. Besides superintending the realization of the revenue, the duties of administering the excise and other special taxes and of supervising the stamp revenue devolve in each district upon the Collector, as executive head of the district; he is also the District Registrar and Visitor of the District Jail, and has important duties to perform in connection with local funds and municipalities, with the Land Acquisition Act (I of 1894) and the forests, and his opinion is required in all questions of executive administration.

Local Funds.

32. The system of Local Board administration underwent a great change in 1884, when an Act was passed with the view of promoting interest among the people in local matters and of giving them a voice in the disposal of local funds. For each district a District Local Board has been established and for each táluka a Táluka Local Board, the latter being subordinate to the former, and the right of election has been given in all but a few backward parts of the Presidency. The Táluka Local Board, which is the unit of local self-government, consists of elected and nominated members, the former to be not less than one-half of the whole Board exclusive of the President. The number in each Board is fixed by Government, and the táluka is divided into groups of villages, each of which returns one member. Honorary Magistrates, Revenue or Police Pátils, holders of land assessed at Rs. 48 per annum, owners of immoveable property worth Rs. 5,000, persons who earn at least Rs. 500 per annum, and pensioners in receipt of Rs. 50 per mensem are entitled to vote at the elections and to stand as candidates. In addition to these, holders of entire alienated villages elect one member from among their own number and municipalities with a population of more than 5,000 each elect a member from among the number of municipal commissioners. The remainder are nominated by Government on the recommendation of the local authorities but not more than half of the nominated members may be salaried servants of Government. The elective members of District Local Boards consist of—

(*a*) One or more members for each Táluka Board or group of Táluka Boards.

(*b*) One member for each municipal district containing not less than 18,000 inhabitants, elected by the municipal commissioners from among their own number.

(*c*) One member elected by the holders of entire alienated villages from among their own number.

33. The Collector is usually appointed to be President of the District Local Board and the Assistant or Deputy Collector of the Táluka Local Boards in his charge, and when this is done the Boards elect a Vice-President, who exercises the powers delegated to him by the President. The funds at the disposal of the Boards consist chiefly of the one anna cess on land, but there are other revenues assigned under section 44 of the Act such as proceeds of ferries, tolls on local fund roads, quarrying fees, &c. In addition to these considerable extra grants are made by Government for education and water-supply. The greater part of the revenue is usually spent by the District Board on works of general utility to the whole district, but each Táluka Board has some funds at its disposal to carry out the works for which it is responsible, *viz.*, the construction and maintenance of such works and roads as are purely local (to the táluka). At least one-third of the net revenue from the one anna cess must be spent on education. The total expenditure from District Local Funds during the year 1901-1902 amounted to Rs. 40,69,477, of which Rs. 16,83,721 were expended on education, and the remainder on roads, tanks, wells, dispensaries, and other useful works and services. Certain powers of control are reserved by the Act to the Collector, the Commissioner and to Government, but they have been rarely exercised. Notwithstanding the extensive powers granted, the measure, in so far as it aimed at creating an interest in local self-government, has not been altogether a success.

Municipalities.

34. The Municipal affairs of Bombay are regulated by Bombay Act III of 1888 and the powers of the Corporation are practically uncontrolled by Government. In the rest of the Presidency proper and in Sind Bombay Act III of 1901 is in force. The distinction between city and town municipalities which was abolished by Act II of 1884 has been revived in part with a view to provide special powers for the executive in large cities where scientific systems of sewerage and water-supply have been introduced. For such city municipalities a Chief Executive Officer (and if necessary a Health Officer and an Engineer) with extensive responsibilities may be appointed by the municipality and shall be so appointed if Government so direct. With a few exceptions, all permanent municipalities now consist partly of elected and partly of nominated

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members. The proportion of the former must not be less than half of the whole number (exclusive of the President), and of the latter not more than one-half may be salaried servants of Government. The President is ordinarily appointed *ex-officio* or by name by Government, but he may, if Government so direct, be elected by the Commissioners, and the Commissioners elect a Vice-President, subject to the approval of the Governor in Council or of the Commissioners if Government so direct, who exercises powers delegated by the President. Considerable powers of control have been reserved to the Collector, the Commissioner of the Division and Government, and Government have power in cases of repeated default of duty to supersede municipalities. This power has been exercised several times of late years, chiefly in connection with the refusal of municipalities to carry out necessary reforms in taxation. Municipalities are expected to make provision for roads, dispensaries, water-supply, sanitation, education, and generally to carry out measures necessary for the public health and convenience. They are allowed, subject to sanction of Government, to raise funds by direct and indirect taxation, and when any special works are carried out, such as water works, roads or conservancy services, or special measures undertaken such as the suppression of any epidemic, special rates may be imposed. It has, however, been the general policy of Government to urge the abolition of octroi in areas in which it was found to act as a mere transit duty, and the introduction of a properly graduated house-tax has in such cases been advised and usually adopted. It was represented to Government that many of the smaller towns wherein it was proposed in the years 1889-1890 and 1890-1891 to establish municipalities would be overburdened by a system of Local Self-Government, such as that defined by the District Municipal Act. The income they could depend upon would have been insufficient to fulfil the obligations imposed by the Act, and to provide for the sanitary and other needs of the local areas in question. For this reason only and in the interests of the rate-payers, and not from misgivings as to the propriety of extending where sufficient means were available, the principle of Local Self-Government, it was decided to abolish certain municipalities, which indeed had scarcely emerged from an embryonic existence. Power has, however, been taken to levy rates in such small places, which are not sufficiently advanced for full-fledged municipal institutions and devote the proceeds to the same objects as those for which municipal taxation is raised. Most of the Municipalities are in a flourishing condition, and in the larger ones especially party feeling runs high at the triennial elections. Their total income in 1901-1902 amounted to Rs. 65,93,831 and expenditure to Rs. 64,45,789.

Medical Department.

35. The head of this department is the Surgeon-General with the Government of Bombay. The number of covenanted medical officers who are subject to his authority is 53, including the officers of the Sanitary Department, which is separately mentioned below. There are also in the service of Government three lady doctors, who are employed at the Pestonji Hormusji Kama Hospital for Women and Children in Bombay. There are 50 Assistant Surgeons, of whom 3 have been appointed Civil Surgeons and 4 have been appointed Senior Assistant Surgeons on increased emoluments, and 291 Hospital Assistants of various grades, who are mostly employed in dispensaries. There are three medical schools in the Presidency—at Poona, Ahmedábád and Hyderábád, all of which are useful institutions. During the last decade the following new institutions have been opened in the Presidency:—

The Plague Research Laboratory established at Government House, Parel, Bombay.

The Morarbhai Vijbhukhandas Hospital for Women and Children, Surat, built out of a sum of Rs. 45,000 given by Bai Dayakor, widow of Mr. Morarbhai.

The Lord Harris Travelling Dispensary for the Daskroi Táluka of the Ahmedábád District, started out of an endowment fund of Rs. 20,000 given by the late Ráo Bahádur Ranchodlal Chhotalal, C.I.E.

The Lady Dufferin Hospital for Women, Karáchi, built out of a sum of Rs. 50,000 given by Mr. Edalji Dinsha, C.I.E.

Obstetric ward in the compound of the Victoria Jubilee Dispensary, Ahmedábád, built out of a sum of Rs. 30,000 given by the late Ráo Bahádur Ranchodlal Chhotalal, C.I.E.

The Motlibai Jehangir Nasarvanji Wadia Dispensary at Karanj in the Surat District, built out of a sum of Rs. 20,000 given by Bai Motlibai.

The Nasarvanji Jehangir Wadia Dispensary, Andheri in the Thána District, built out of a sum of Rs. 50,000 given by Mr. Wadia's widow.

An ophthalmic hospital and an out-door dispensary in the precincts of the Hathesing and Premabhai Civil Hospital, Ahmedábád, built out of a sum of Rs. 34,000 given by Khán Bahádur Nowroji Pestonji Vakil, C.I.E.

The Byramji Jijibhai Hospital, Mátherán, built out of a donation of Rs. 10,000 given by the Trustees of the Honourable Byramji Jijibhai Trust Settlement, 1872.

The Nowroji N. Wadia Dispensary, Khandála, built by Mr. Wadia's widow, who also gave an endowment fund of Rs. 30,000.

A new Lunatic Asylum has also lately been established at Navpára near Thána, and the question of establishing a Central Lunatic Asylum for the Presidency at Yeraoda near Poona is at present under the consideration of Government.

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An important branch of the Civil Medical Department which has only recently been made subordinate to the Surgeon-General is the Sanitary Department under the control of the Sanitary Commissioner, five Deputy Sanitary Commissioners,* one Superintendent of Vaccination, Presidency Circle, and a Health Officer of the Port of Bombay. The duties of these officers are to superintend and encourage the sanitation of the districts and towns comprised within their charges, inspect dispensaries, and generally advise the district officers. When in case of an epidemic or from any other cause the pressure of work becomes excessive in the Civil Medical Department, Medical officers can be removed to it temporarily from military duty. In 1892 a Sanitary Board was constituted, consisting of the Sanitary Commissioner and a selected Public Works Engineer. Since 1900, when the Sanitary Department was subordinated to the Surgeon-General, that officer has been a member and President of the Board. The duties of the Board are to give advice and assistance to Local Boards, to Municipalities, and to all departments of Government in all matters relating to the public health, and, when required, to prepare or examine sanitary schemes.

* Deputy Sanitary Commissioner, Western Registration District.
Do. Central do.
Do. Southern do.
Do. Gujarát do.
Do. Sind do.

Public Works Department.

36. The Public Works Department is administered by 2 Chief Engineers (the senior of whom is usually Secretary to Government), 5 Superintending Engineers (including the additional Superintending Engineer for Sind), one of whom is the Sanitary Engineer and Member of the Sanitary Board, 33 Executive Engineers divided into 3 grades and 35 Assistant Engineers divided into 4 grades, of which the lowest is entitled the Apprentice grade. Besides the above 2 temporary Superintending Engineers have recently been sanctioned, one of whom is the Consulting Architect to Government, and the other is on special duty in connection with the investigation of Protective Irrigation Works in the Deccan. In the Railway Department there are a Consulting Engineer (Superintending Engineer, 2nd Grade) and five Deputy Consulting Engineers.

Educational Department.

37. For educational purposes each district is provided with a Deputy Inspector, and there are four Inspectors, one for each Revenue Division and one for the Province of Sind. The control of the whole Department is vested in the Director of Public Instruction. Of educational institutions the principal is the University of Bombay, which is the only one in the Presidency possessing the power of conferring degrees. Government have marked their appreciation of a College education by laying down rules ordaining that special preference shall be shown to native graduates of the University in appointments and promotions to posts in Government Service. The Elphinstone, St. Xavier's, Dakhan, and Gujarát Colleges, as also the Wilson, Dayáram Jethmul, Rajáram, Baroda, Fergusson, Bahauddin and Samaldas Arts Colleges, all prepare students for the University Examinations. There is at least one High School at the headquarter station of each district, which prepares students for Colleges and for the School Final Examination which qualifies for admission into the Public Service. Normal schools for training vernacular masters are maintained at Ahmedábád, Poona, Dhulia, Dhárwár, Rájkot, Kolhápur, Ahmednagar and Hyderábád, and there are also Training Colleges for school-mistresses at the above-mentioned places except Dhulia and also at Karáchi and Bombay. There are also several educational institutions for instruction in special sciences, the principal of which is the Grant Medical College in Bombay, attached to the Jamshedji Jijibhai Hospital. The Government Law School in Bombay, the Bombay Veterinary College and the Victoria Jubilee Technical Institute, the School of Art and Reay Art Workshops in Bombay, the College of Science in Poona, and the Law Classes in Poona, Karáchi, Ahmedábád, Bhávnagar, Junágad and Baroda, and the School of Industry at Ratnágiri are useful institutions of this nature.

Forest Department.

38. In the Forest Department the decade has been one of continued progress in spite of adverse circumstances. For purposes of administration, the Presidency has been divided into four forest circles, corresponding to the four revenue divisions. Three of these circles are in charge of Conservators and one of a Deputy Conservator. The superior Forest staff was reorganized in 1896, and, in addition to the three Conservators, consists of 28 Deputy and Assistant Conservators who form the upper controlling staff. There are also 19 Extra Assistant Conservators who form the lower controlling staff. The Forest service is now divided into two branches. The Conservators, Deputy and Assistant Conservators constitute the Imperial branch, and the Extra Deputy and Assistant Conservators the Provincial branch of the service. The scheme contemplates the eventual transfer of 6 appointments of Deputy and Assistant Conservators from the Imperial to the Provincial branch, and 3 of these appointments have already been provincialized. The Imperial Branch is recruited entirely from officers trained at the Cooper's Hill College and appointed under Covenant by the Secretary of State, and the Provincial Branch by promotion of L.C.E's, L.Ag's or passed students of the Poona Forest Class serving as Rangers, or by direct appointment of L.C.E's or L.Ag's qualified under the rules of 1893. Government have recently decided to abolish the Forest Class attached to the College of Science, Poona, and to utilize the Imperial Forest School at Dehra Dun for the training of candidates for employment as Rangers and Extra Assistant Conservators in this Presidency. The Deputy and Assistant Conservators, as well as the Extra Deputy Conservators and Extra Assistant Conservators in the higher grades generally hold charge of a Forest Division and under them are Extra Assistant Conservators of the lower grades, Rangers, Foresters, and Forest Guards. Forest administration is a branch of the general administration and the central authority in forest matters is the Commissioner of the Division subject to the

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general orders of Government. All Forest officers are under his authority. Forest officers in charge of circles have full powers in all professional operations of technical forestry, subject to the general control of the Senior Conservator as regards preparation and modification of working plans, but in all other matters, such as those of rights and privileges of the people in forests, local supply of grass, grazing and fodder, and generally as regards the relation of the Department with the people, control vests in the local Revenue officers and the Forest officers are subordinate to them for these purposes and act as consultative officers only. The work of forest settlement is generally complete except in parts of Kánara and Thána. Forest survey parties have been employed in the Presidency since 1888, and working plans parties have been organized with a view to ascertain the capabilities and to prepare scientific schemes for the exploiting of the forests, so that they may be worked up to the maximum of their capacity. In the Central and Southern Circles the work in connection with the preparation of working plans, which elsewhere is generally completed, is still in progress. The classification of forests into forest proper, fuel and fodder reserves and pastures has been completed in the Northern Circle and Southern Circle and parts of Central Circle and the area classed as pasture is being transferred to the Revenue Department for management. The total area under forest at the end of 1901-1902 was 14,721 square miles, of which 791 square miles are protected forest. The general depression of all trade owing to the continuance of plague and recurring famines during the latter part of the decade is reflected in the financial results of the Department's operations. The revenue and expenditure for the year 1901-1902 were Rs. 28,54,432 and Rs. 16,70,440 respectively.

Opium Department.

39. This Department is in the Presidency proper under the control of the Commissioner of Customs, Salt, Opium and Abkári, and in Sind under the control of the Commissioner in Sind. The manufacture of opium throughout the Presidency has been prohibited; and the importation of opium from Málwa has been restricted to certain specified routes. The cultivation of the poppy has been prohibited in all Native States except Baroda. The total net Excise opium receipts during 1901-1902 were Rs. 7,69,043, of which one-fourth was credited to the Provincial and three-fourths to the Imperial account. The total Imperial revenue from opium during that year amounted to Rs. 88,00,502. The expenditure on account of a portion of the opium establishment in Bombay City and that employed at the Ahmedábád Opium Agency is debited to Imperial Revenues and amounted in 1901-1902 to Rs. 26,296. The expenditure on account of the Excise Opium Department is included in that of the Abkári Department. A special Opium Preventive Establishment under an Assistant to the Commissioner has been created for the suppression of smuggling from Native State territory. The charges on account of this establishment are met by the levy of contributions from the opium farmers who obtained their farms on the selection system. The force is yet in its infancy, but some important captures have been effected and valuable information obtained.

Abkári Department.

40. The administration of this Department is vested in the Collectors (under the general control of the Commissioner of Customs, Salt, Opium and Abkári as regards the Presidency proper and of the Commissioner in Sind as regards that Province) through their ordinary Revenue and Police establishments assisted by a staff of Distillery and Preventive Inspectors and Sub-Inspectors, a few special ministerial officers, such as gaugers, clerks and kárkúns, and a small number of special Abkári Police. In Aden, the Abkári establishment is, subject to the control of the Political Resident, under an Assistant Resident, who is Collector of Abkári. The Abkári revenue of the Presidency proper and Sind during 1901-1902 was Rs. 90,37,503 and Rs. 12,67,114 respectively, and the expenditure was Rs. 3,16,290 and Rs. 17,393 respectively. The Abkári receipts and expenditure in Aden are small. By Act V of 1901 power has been taken to tax and regulate the traffic in hemp drugs in accordance with the orders of the Government of India on the recommendations of the Hemp Drugs Commission.

Salt Department.

41. The Salt Department in the Presidency proper is under the control of the Commissioner of Customs, Salt, Opium and Abkári, and consists of one Collector and 10 Assistant Collectors, together with a large staff of Inspectors, Sar-kárkúns and minor officials. Besides realizing the salt revenue and administering the law relating thereto, this Department has the entire control of the Uran distilleries, the Continental Customs ports, lighthouses, &c. The Salt receipts in the Presidency proper amounted in 1901-1902 to Rs. 2,25,89,143 and the expenditure to Rs. 17,00,479. There are separate establishments for Sind and Aden under the control of the Commissioner in Sind and the Political Resident, Aden, respectively. The salt revenue and expenditure in Sind in 1901-1902 were Rs. 7,30,309 and Rs. 1,34,873, respectively. The revenue and expenditure in Aden are small.

Customs Department, Bombay and Karáchi Ports.

42. The Customs administration of the Port of Bombay is managed by the Collector of Land Revenue, Customs and Opium, Bombay, 8 Assistant Collectors (including the First and Second Assistant Collectors who are covenanted civilians) and a Superintendent and Deputy Superintendent of the Preventive Service, subject to the general control of the Commissioner of Customs, Salt, Opium and Abkári. That of the Port of Karáchi is managed by a Collector and 2 Assistant Collectors, subject to the control of the Commissioner in Sind. In 1894 a new Tariff Act came into force and import duties were imposed on numerous new articles. The result has been a considerable increase in revenue and expenditure during the past decade. The receipts and expenditure of the department at the former port amounted in 1901-1902 to Rs. 1,67,41,248 and Rs. 6,23,721, respectively, and at the latter to Rs. 51,30,209 and Rs. 1,31,352, respectively.

The inclusion by Act XVI of 1894 of all cotton goods in the list of dutiable articles evoked a storm of protest from Manchester mill-owners who were thus severely handicapped in their competition with Indian spinners and weavers in Indian markets. The view at first taken was that it was only necessary to protect the higher counts of imported cotton yarns from undue competition, and accordingly countervailing excise duties were imposed at the same time on all higher counts than 20 of cotton yarn spun in British Indian mills. This measure of protection proved inadequate and the differentiation of finer and coarser counts unworkable, and in 1896 all twist and yarn were exempted from duty, the duty on cotton cloth was reduced from 5 to 3½ per cent. *ad valorem*, and an excise duty was imposed on all cotton goods (yarn and thread being exempted) produced in British India. The net revenue from the textile productions of mills coming under the Act was Rs. 14,83,148 in the year 1901-1902.

43. A Department which requires special notice and which is closely connected with the land revenue department is that of Land Records and Agriculture. The Famine Commissioners in 1880 advocated the formation of a special department to collect facts relating to the condition of the agricultural community and the agricultural progress of the country. The Government of India in communicating the recommendation to the Local Government laid special stress on the following points:— Department of Land Records and Agriculture.

(1) That systematic prosecution of agricultural inquiry must precede any attempt at agricultural improvement;

(2) That the Agricultural Department in the section of its duties appertaining to agricultural inquiry must be brought into close connection with the Land Revenue Department proper; and

(3) That the condition of each district should be carefully studied with a view to ascertaining the measure of protection it enjoyed against famine.

Accordingly the whole Department of Agricultural experiment has been reorganized and placed under the direct supervision of a Deputy Director of Agriculture and various important experiments have been conducted. But these functions have been subordinated to that of carrying out the scheme for improved statistics sketched out by the Famine Commission. The necessity was recognized of adopting special measures to ensure a constant and regular test of the statistical returns which are kept by the village accountants, and which are of great importance in estimating the progress of the village in material wealth and prosperity when the time arrives for a re-settlement of the revenue demands. The Famine Commissioners recommended that a supervising staff should be maintained to improve statistics in order that famine might not overtake the country unprepared and in order that schemes for the well-being of the people might be elaborated. In the Bombay Presidency the staff was required for additional reasons, *viz.*, to provide for the revisions of assessment in the future, to save present expenditure on special establishments, and to give a very urgently needed addition of strength to overworked revenue establishments. It was accordingly arranged that the Survey Department proper should complete the field valuation and survey record and then cease to exist as a separate department, and that all the work connected with the maintenance of the survey record and the preparation of future revision settlements should be entrusted to the Revenue Department, the special establishments maintained for the purpose in each district forming part of the revenue establishments. The special staff thus created consists of a Superintendent of Land Records and Agriculture, District Inspectors and Circle Inspectors. The function of the Director of Land Records and Agriculture in the new department has been limited to inspection and advice, and he has been expressly excluded from control over the district establishments which are subordinated to the Collectors. The position of the Superintendents is that of Assistants to the Commissioners to whose orders they are generally subject. The Circle Inspectors, whose number is now to be largely increased, form part of the Mámlatdárs' establishments and have to closely supervise all the work of the village accountants and perform all the out-door duties originally assigned to the general duty or Bhág-Kárkúns, while the District Inspector supervises the work and also has charge of the Survey Office at head-quarters. Assistant and Deputy Collectors and Mámlatdárs are expected to test the work of the Land Records establishments. The Land Records staff has been introduced in all districts of the Presidency. Revised forms for the preparation of agricultural and fiscal statistics have been introduced and the statistical atlas containing an analytical study of each district to show the measure of protection it enjoys against the ravages of famine is being revised by the Director, Land Records and Agriculture. The necessity for a complete record of all rights and interests in land, which with its attendant difficulties had long been recognised, has been more particularly emphasized during the past years of famine and scarcity, and accordingly instructions have been issued and the necessary legislation undertaken for the preparation and maintenance of such a record. The compilation of the record is at present in progress in most districts, but until its accuracy has won for itself a considerable measure of evidential value in the Civil Courts, it is not proposed to secure its acceptance as evidence in any civil suit by statutory enactment.

44. The Civil Veterinary Department which includes (1) the Horse-breeding Department and (2) District Veterinary Establishments* comprising officers in charge of District Veterinary

* These establishments are Local; Government paying a contribution towards their salary, &c., and retaining the right of supervision through its officers.

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Dispensaries and Itinerating Veterinary Officers, has been subordinated to the Director, Land Records and Agriculture. The horse-breeding operations in Sind have been transferred to the control of the Superintendent, Civil Veterinary Department, Baluchistan and Sind, under the direct supervision of the Inspector-General, Civil Veterinary Department, and the Government of India.

Minor Departments.

45. Of the minor departments the Jail and Registration Departments require special notice. For the purposes of Registration the Presidency is divided into Districts and Sub-Districts, which correspond in the main to the Revenue Collectorates and Tálukas. The Collector is the Registrar of the District and in almost every táluka there is a Sub-Registrar who is subordinate to him. There are also Village Registry Offices established under the Dakhan Agriculturists' Relief Act in the districts of Poona, Ahmednagar, Sátára and Sholápur, where that Act is in force. The working of the Department is under the supervision of Inspector General of Registration. The revenue and expenditure were in 1901-1902 Rs. 5,09,737 and Rs. 2,74,306, respectively.

46. There are four classes of Jails; subsidiary jails placed at different points all over the Presidency for the confinement of persons sentenced to short terms of imprisonment; district prisons at Karáchi, Shikárpur, Dhulia, Bijápur, Ratnágiri, Dhárwár and Kárwár; special prisons at Thána, Aden and the City of Bombay; and 3 Central Prisons at Yeraoda, Ahmedábád and Hyderábád. There are in addition two extra-mural gangs, one in the Deccan and one in Sind. The office of Superintendent of the Prison is ordinarily held by the Civil Surgeon and in such cases the immediate charge of the prison is in the hands of a Jailor subordinate to him. All the prisons in the Presidency are under the control of the Inspector-General of Prisons. Regular provision is made for the appointment of visitors to each prison.

Revenue Survey—origin of the measure.

The revenue survey of the Bombay Presidency was in progress for sixty-six years and was brought to a conclusion in 1901. In its origin it was simply an experimental measure, carried out with a very limited establishment, in a single táluka (Indápur) of the Poona Collectorate, and with the object of correcting the work of a previous survey preparatory to a revision of assessment.

Nature of previous settlement.

2. When the present survey was commenced, the Deccan had been for seventeen years under British rule. The previous survey and settlement had been carried out under the direction of Mr. Pringle, of the Civil Service. His settlement attempted to fix the Government demand at about half (55 per cent.) the net produce, and therefore entailed not only estimates of the yield of various crops and soils, but of the cost of cultivation. But owing to the continuous fall in the money value of agricultural produce due to a variety of circumstances which need not here be specified and the consequent yearly increasing pressure of the State demand, the settlement was found to press heavily on the people.

Defects of previous settlement.

3. The execution of the different operations of Mr. Pringle's survey had been entrusted entirely to native agency without either the experience or integrity needed for the task, and at a subsequent period the results obtained were found to be nearly worthless. The preliminary work of measurement was grossly faulty, and the estimates of produce, which formed such an important element in the determination of the assessment, and which had been prepared in the most elaborate manner, were so erroneous as to be worse than worthless. But meanwhile the settlement had been introduced, and with the result of aggravating the evils it had been designed to remove. From the outset it was found impossible to collect anything approaching to the full revenue. In some districts not one-half could be realized. Things now went rapidly from bad to worse. Every year brought its addition to the accumulated arrears of revenue and the necessity for remissions or modifications of rates. The state of confusion in the accounts, engendered by these expedients, was taken advantage of by the native officials to levy contributions for themselves.

Measures taken in 1835.

4. It was when matters had reached this crisis that at the end of 1835, an examination and correction of the operations of Mr. Pringle's survey in the Indápur Táluka of the Poona Collectorate were ordered in view to a revision of the settlement in that district. The duty of conducting the work was entrusted to Mr. Goldsmid, of the Civil Service, then an Assistant Collector, and Lieutenant Wingate,* of the Engineers. With these gentlemen Lieutenant Nash, of the Engineers, was subsequently associated. This was the real commencement of the revenue survey in the Bombay Presidency.

New method of classification adopted.

5. As the new operations progressed, the extremely defective character of the original survey became apparent. Much of the measurement had to be undertaken *de novo*, but when areas were not faulty to any great excess they were accepted as the basis of the new assessment. An entirely new method of classification was adopted. Abandoning all attempts to arrive at a theoretical ideal of assessment by endeavouring to discover the yield of different soils, and assigning a certain proportion of this as the Government demand, the survey officers adopted the simple expedient of ascertaining the average character and depth of soil in each field, and classing it accordingly,—no more than nine gradations of valuation being employed for the

* Afterwards Major Sir George Wingate, K.C.S.I.

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purpose. In fixing the rates of assessment they were guided by purely practical considerations as to the capability of the land and the general circumstances of the district. The more intelligent among the agricultural class were even taken into consultation on the subject, and their opinion allowed due weight. No safe standard of assessment existed. The rates in force in the prosperous times of the district had, through the continuous depreciation in the value of money, long ceased to represent any moderate share of the produce of the land, and the ruinous consequences of the first settlement forbade any reliance being placed on the system of fixing the Government demand on estimates of the yield of the land.

Founded on the capability of the land and the general circumstances of the districts.

6. The result showed the wisdom of the course taken. In the second year of the Indápur settlement the Revenue Commissioner reported to Government that "the sum *actually collected has never been so great* except during the first four years of our occupation, when it is generally acknowledged our demands were much too high"; and again, "the outstanding balances *have never yet been so low at the end of the official year as they were last year.*" A marked extension of cultivation was one of the immediate results of the settlement; nearly 68,000 acres of waste land having been brought under the plough by the end of the second year, besides more than 3,000 acres reclaimed by immigrants from other districts, attracted to Indápur by the revived prosperity of the táluka.

Satisfactory results of the change.

7. The Indápur experiment having proved thus signally successful, the survey operations were rapidly extended to other districts, the same results following everywhere. In the course of a few years separate surveys were organized for the Poona and Ahmednagar Collectorates and for the Southern Marátha Country. As experience was gained, improvements were introduced in the methods of procedure, the end in view always being to render them as simple and susceptible of thorough check and control as possible, as well as to adapt them to the varying circumstances of the districts which successively came under the survey. But it was not till 1847 that a definite and permanent form was given to the system of survey operations. In that year, in accordance with the orders of Government, the Superintendents of the three surveys met at Poona, and drew up a joint report setting forth what they considered to be "the best means for bringing the somewhat diversified operations of the several revenue surveys of the Presidency into conformity as far as practicable, and also for ensuring the results of the surveys being turned to the best account, and maintained in their original integrity in the future management of the districts." The Superintendents, besides defining the objects of a revenue survey, and the general principles on which the assessment of land should, in their opinion, be conducted, submitted a body of rules for definition and demarcation of fields, the settlement of boundary disputes, the classification of soils, the interior regulation of surveys and the administration of settlements, which having received the approval of Government became an authoritative manual for the conduct of all future survey operations. Up to this period, though there had been a general adherence to the main principles by which the work was governed from its beginning, some diversity of practice had prevailed in the different surveys. A greater degree of uniformity and completeness was now given to it.

Extension of Survey operations into other districts.

Changes in 1847.

Joint Report of the Superintendents of Survey.

The "Joint Rules."

8. At this point it seems desirable to sketch briefly the general features of the revenue survey system as then defined under official sanction with the modifications which the progress of the survey has since required, though indeed very little modification was made till the survey was completed and till more or less partial revision of the original survey was found necessary.

Sketch of the system.

9. First, with regard to the interior regulation of the different surveys. Each survey was under the direction of a Superintendent, subordinate to whom were several officers designated Assistant Superintendents, having charge of parties or establishments of measurers or classers. The operations of measuring and classing were conducted, as a rule, by separate establishments, and generally the classification of a district followed the measurement at an interval of one season. Every detail of the survey operations was closely supervised by the Assistants. The work in the field was subjected to regular test by them, and none was accepted as trustworthy unless it had stood such test satisfactorily. On the Superintendent devolved, besides the general control of the survey, the duty of determining the relative valuation of fields, of submitting proposals for settlement to Government, and of introducing the settlement when sanctioned. In this last operation an officer of the Revenue Department was usually associated with him. As the allotted task of the Survey Department is now drawing to a close, and as recruitment of European assistants has long been impossible on that account, a small modification of the above organization has recently been introduced. The paucity of European assistants has made a system necessary whereby each party is placed in the immediate charge of a native surveyor of experience, and two or more parties have been linked together under an European assistant responsible for a test of the work of both the surveyor and also to a certain extent of the men under him. This cannot be looked on as a return to the faulty organization of Mr. Pringle's survey, for not only have the native surveyors the merit of long and careful training but their work is adequately tested. In view of the responsible position which revenue officers as Mámlatdárs will hold in respect to the permanent staff to maintain the survey, selections from revenue officers who have qualified as Mámlatdárs are being made to fill the post of surveyors in charge of a party. This ensures a most important training for these selected men in survey details and principles, and also provides a class for the post of surveyor of higher educational attainments than can be secured from men who have risen through the ranks of the Survey Department. As a further extension of the principle of providing a permanent staff in lieu of the temporary Survey Department, arrangement has been made to train Village Accountants in surveying in all districts.

Organization of the Department.

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Commissioner of Survey and Settlement.

10. In the year 1863-64, two Commissioners of Survey and Settlement were appointed. The office, indeed, had been created at an earlier period in the progress of the survey, when Major Wingate was entrusted with the chief control of the department for the entire Presidency. On his retirement from the service in 1853 it was abolished, but was revived some years later by the appointment of Colonel Anderson as Commissioner of the Southern Division, and soon afterwards of Colonel Francis as Commissioner of the Northern Division of the Presidency. These officers were charged with the direction in chief of the survey operations and with the control of expenditure. The office of the Survey Commissioner is the channel of communication between the Superintendents and Government, more particularly as regards the settlement proposals sent up by the former. On the retirement of Colonel Francis in 1877 Colonel Anderson was placed in charge of both the Southern and Northern Divisions, and thereafter, though a nominal distinction between these two offices was for some years retained, they were in practice amalgamated into one. When, however, Colonel Anderson signified his intention to retire, an opportunity was taken to give effect to the wishes of the Secretary of State for India to appoint a member of the Civil Service to the office. This was done in 1881 by appointing Mr. Stewart to be Survey Commissioner of the whole Presidency, except Sind, the control of the survey of which province was given to the Commissioner in Sind. The control of the Mysore Survey, which hitherto had been under the Survey Commissioner of the Southern Division, who was also Inám Commissioner of that province, was withdrawn, owing to the assumption of the administration of the State by His Highness the Mahárája. On Mr. Stewart's retirement in 1891, he was succeeded by Mr. Ozanne, then Director of Land Records and Agriculture. In 1883 the department of agriculture had been created on the recommendation of the Famine Commission of 1878, and in 1884 that department was expanded into the department of Land Records and Agriculture with the special object of providing a permanent department to succeed the Survey Department and to maintain its completed work and traditions. On the 1st April 1893 the offices of Director, Land Records and Agriculture, and Survey and Settlement Commissioner were amalgamated under the title of Survey Commissioner and Director, Land Records and Agriculture. The Survey Department was wound up, and work connected therewith is now carried out by the Land Record staff under the Director.

In passing orders on the Final Progress Report of the Survey Commissioner regarding the winding up of the Survey Department, Government remarked :—

"The value of the services rendered to the State by the Survey Department can hardly be exaggerated. At the time when the existing system was introduced, that is to say, about 60 years ago, Government were still confronted with the formidable problem of settling upon an equitable and workable basis the revenue demand for a vast number of small holdings. Several modes of settlement, based on pre-existing practice, had been tried; some of them, such as the Pringle settlement, had disastrously failed. Out of the prevailing confusion the principles of the existing system of survey settlement were evolved by the genius of Messrs. Wingate and Goldsmid, the authors of the celebrated Joint Report. Upon the principles laid down in that report has been founded a system of land tenure and assessment admirably adapted to the requirements of the widely varying conditions of the different parts of the Presidency. Under the system of measurement and classification by subordinate agency, subject to the test of technically trained and skilled supervising officers, methods were employed by which the area of every one of these small holdings could be measured, and the relative productive capacity of the soil estimated with scientific accuracy. By the system of grouping the relative economic and climatic advantages of different tracts were duly taken into account. In this manner the equitable distribution of the assessment was secured. The rates charged at the original settlement per acre of land occupied were in many instances extraordinarily low as compared with those previously levied. But as anticipated by the framers of the system, the effect of the fixed tenure and of a certain and moderate assessment was at once seen in a rapid expansion of cultivation, which, even at the low rates of assessment sanctioned, yielded a large increase of revenue. The extensive areas of waste land existing at the time when the system was introduced have been employed largely for the growth of crops valuable for export purposes. Despite the check occasioned by many bad seasons and several disastrous famines and notwithstanding the heavy burden of indebtedness with which the agricultural population was saddled from the first, the value of land and the prosperity of the country and with them the revenue have steadily increased. When the first leases of 30 years expired, it was found possible to increase the assessment by very substantial amounts; but the enhancements have with rare exceptions been borne without difficulty. The Survey Department has cost the State from first to last many lákhs of rupees. But the outlay has been repaid over and over again. One peculiar merit of the system deserves mention. By the division of the whole culturable area into what may be called units of assessment, the extension of cultivation was made to carry with it an increase of revenue, while the revenue payer was placed in a position to ease his burden by giving up the occupation of lands unprofitable to him. The extensions of cultivation which have occurred have thus been profitable to the State no less than to the individual; whereas under a zamindári or kindred system the State would have gained nothing, however much cultivation had extended throughout the whole of 30 years' leases. But it has not been only as a revenue-producing instrument that the Survey Department has proved its usefulness. The system to which the valuation of soils has been reduced is in many respects unique, and has resulted in a record of that valuation complete for innumerable small parcels of land. Probably no other province or country is possessed of any similar record. Its chief and immediate

value for administrative purposes is that it enables field operations to be entirely dispensed with in all future settlements. The change of assessment can be decided for a whole tract on a review of its economic conditions and revenue history, and the people are saved from all the uncertainty and harassment consequent upon inquiry into the circumstances of individual holdings. The greatest credit attaches to the founders of this system, which has stood the test of experience and practical application in the most satisfactory manner. Developments have been introduced, but in no particular have the principles, and in very few have even the individual rules and directions laid down in the Joint Report, been widely departed from. For the intelligent and sound application of the rules to innumerable varieties of climate, soil and agriculture, the Government has had to depend on the integrity, skill and intelligence of the officers and subordinates of the Department, who deserve the warmest acknowledgment for the untiring devotion and zeal which they have displayed in the performance of their laborious duties. The technical knowledge and the intimate acquaintance with the rural economy of the country acquired by the principal officers of the Survey Department have been of the greatest advantage to Government. Several of the Heads of the Department, besides its famous founders, Colonel Francis, Colonel Anderson, Mr. Theodore Stewart and Mr. Ozanne, have shown administrative ability and judgment of an exceedingly high order. Other officers, such as Major Preston, Mr. Pedder and Mr. Beyts of the older generation, Mr. Fletcher, Colonel Godfrey and Mr. Hearn of more recent years, have left on record reports of high value regarding the economic condition and productive capacity of the various parts of the Presidency in which they served. Among the native subordinates not a few attained a high degree of skill in the valuation of soils. Mr. Symonds has the credit of guiding the operations to a satisfactory close. While recognizing that the work for which the Department was constituted has been completed, the Governor in Council cannot but regret that the technical knowledge and skill which the members of it had acquired to the great advantage of the administration will be no longer available."

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11. With respect to the general principles on which the survey operations were and are conducted, great importance is attached to the correct measurement and demarcation of individual holdings. The holding, or the area of land, no matter how small, entered in the records of a village as belonging to a registered occupant, is the theoretical unit of survey: the success of settlements on the "rayatwári" system depends in a very great degree on the correctness of the measurement of individual properties and on the facilities afforded for identifying them. To ensure these objects a constant check is kept on the work of the surveyor, who is required to have boundary marks erected at the corners and bends of each property as his work progresses, and is taught to regard this point of his duties as equally important with that of ascertaining areas. Great pains are taken in the construction of the village map, in which, besides the outline of each survey number (in which may be included several holdings or properties), the position and description of every boundary mark are shown by conventional signs. The means of identification are thus rendered complete. The small holdings, or *pot* numbers, are shown on a large scale plotted on separate sheets attached to the register of each village.

Principles of the Survey.

12. The typical survey number is a field belonging to one man, just large enough to be cultivated by him with one pair of oxen. It varies in area therefore with the character of the land and of the cultivation, but in practice it has not been possible to adhere to the type, and therefore arose the necessity of clubbing several properties to form the survey number. Theoretically, as has been stated, the survey unit is the area of land, however small, held by the registered occupant, but as the survey tenure places no restriction on sub-division of properties it became necessary to limit sub-division for convenience of revenue administration. In 1868 a limit was recognized by Government which varied in different tracts and in different classes of land. Sub-divisions below the limit are only permissible with the express sanction of the Survey Commissioner, which sanction is given only in special cases. Both the survey number and the survey unit, though the former is still the map unit, have thus lost their typical character, and there exist many rights in the lands of a survey number, and even of the recognized share of a survey number, which are not registered in the village accounts. The registration in these accounts is evidence of liability for the assessment, but not necessarily of proprietary right in the land. The desirability of making the survey record a record of rights as well as of liability is now recognized. It is certain that the survey record can be made to show actual rights to a greater extent than it does in fact show them; but on the other hand with the rules checking sub-division, many rights must remain, which demand separate record, and the compilation of such a record was begun in 1901.

The "Survey Number."

13. Up to the period (1867) when operations preparatory to the introduction of revised settlements were begun in the Poona and Násik Collectorates, it was never attempted to give anything of scientific precision to the survey, or to ensure accurate topographical results. The survey was instituted, as has been shown, for purely revenue purposes, and at an emergent crisis questions of geographical utility could be allowed no place in presence of the paramount consideration of how to afford the means of improving the land revenue administration, and ameliorating the condition of the agricultural classes in the shortest time and at the least cost. In its early years the work was of the roughest description; but as it advanced, and a stricter supervision was exercised, some degree of excellence was attained even from a topographical point of view. At the present day the village map is constructed with much accuracy, and, besides presenting a thoroughly correct delineation of field boundaries (its chief objects), shows village sites, roads, paths, tanks and the physical features of the country within its limits

Survey at first for purely revenue purposes.

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with considerable fidelity. In the districts in which the revenue survey followed the Imperial Topographical Survey, the character of the work was greatly improved by taking the great trigonometrical triangulation as a basis of survey, and adopting the system of village traversing. The plan of working in connection with the Imperial Topographical Survey proved successful.*

14. As revision operations by degrees became more and more restricted and partial, because the work of the old survey, as it progressed, naturally became more and more correct, at later revisions that work was found good enough to be accepted as final, and the utilization of the work of the trigonometrical survey became unnecessary. One limitation was necessarily observed. A cadastral survey map for revenue purposes cannot in rugged country be also a correct topographical map.

System of classification of fields.

15. The system of classification adopted by Mr. Goldsmid and Lieutenant Wingate in Indápur and detailed in the Rules known as the "Joint Rules" which accompanied the Joint Report of 1847 has been continued to the present time with such few modifications as subsequent experience showed to be desirable. Great care is taken to preserve uniformity in the standard of valuation among the different classing parties, as well as by constant tests on the part of the superintending officers to ensure the utmost correctness in the work performed by each classer. The classification is carried out field by field, and the system ensures that each holding shall be minutely examined, the results being so recorded as to enable the testing officer to see at once whether this has been done or not. So simple is the plan of classification, and so capable of being worked out by the native subordinates in conformity with certain established principles, that the average difference between the original operation and test does not exceed 6 or 7 pies in a maximum valuation of one rupee.

How settlement is effected.

16. The experience gained in land valuation by degrees showed that the "Joint Rules" could be improved upon. The prime aim of that system of classification was to fix the relative valuation of the fields of a village, and during the classification attention is concentrated on that object. It cannot be too strongly stated that measurement and classification have no direct bearing on the assessment or land tax ultimately fixed. But both measurement and classification are necessary preliminaries. They are requisite to ensure that the assessment should be fairly and evenly distributed. But here their use ceases. When the classification is done the Superintendent has before him a complete statement of the correct measurement of fields and of the relative valuation of each field expressed in annas. This notation was adopted simply for convenience, for the purpose would equally well have been served if the comparative valuation had been expressed in aliquot parts of 100 or any other similar manner. The adoption of the Re. 1 or 16 anna standard for the comparative valuation has resulted in some confusion in the minds of others than survey officers between the *relative* valuation or classification valuation and the *actual assessment,* which is fixed in the manner to be presently explained.

A statement is then made out for each village showing the relative valuation in annas of each field. The sum of the field valuations represents then in annas, or divided by 16 in rupees, what the assessment on the village would be if an assessment rate of Re. 1 were applied to a field valued at 16 annas. With this guide the Superintendent proceeds to work out his proposals for assessment. From his study of the tract, its varying conditions as to rainfall and communications, its old assessment, and the success or otherwise of its operation during the lease about to expire, he groups the villages into assessment groups, again with the prime object of ensuring proper distribution of the assessment to be fixed, and, taking into consideration the rates already fixed for surrounding tracts, he chooses a rate to be applied to the different groups which will discount the advantages or disadvantages of rainfall and communication of the groups as compared with each other, and which will at the same time, when applied to the classification values, bring in the revenue which in his opinion is a moderate assessment for the tract as a whole. Such rate is called the maximum rate. Up to the stage then of considering the classification valuation or *kacha ákár* as it is technically called the operations are purely mechanical.

Improvements in valuation.

17. The "Joint Rules" made provision under which a field might be classed only up to 16 annas, but showed how this maximum should be reduced, whether on account of character of the soil or its depth, or on account of faults, such as irregular sloping surface, excess of lime, or excess of surface moisture; but the "Joint Rules" did not fix similar guides for an increased valuation for advantages. It has been left to after-experience to improve the relative valuation in this direction. Corresponding with the "faults" whereby a valuation is decreased by degrees, the classers have prescribed various "advantages" whereby the relative valuation is carried even beyond 16 annas. These are numerous; but one or two "advantages" may well be specified, from a description of which the character of this improvement in valuation may be rightly judged.

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* In the province of Gujarát the utilization of the revenue survey maps has had a fair trial for some years past and has been found of the greatest value. The maps of that province, prepared by Colonel Haig, R.E., with the use of the revenue survey maps, were exhibited at the Venice Geographical Congress, and obtained a gold medal; and the Government of India, while commenting upon this, remarked in their Resolution, Revenue and Agriculture Department, No. 168, dated 8th May 1882, as follows:—

"The Government of India is extremely glad to notice that in this survey Colonel Haig has been able to take much of his topographical details from the field surveys of the Bombay Revenue Survey. The economy of this is obvious, and the more recent work done by the Survey Settlement Department of that Presidency approaches in its accuracy a scientific survey."

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As excess of moisture from surface springs lowers the agricultural value of land, so the advantage of position raises this value. If, for instance, by its position a field derives a beneficial flooding from a river through a deposit of fine silt after a flood subsides, or if by position a field is near enough to a running stream to enable the cultivator to irrigate his land by erecting a well on the bank of the stream, an increment in classification is justified and indeed is called for to ensure a fair distribution of the assessment.

Another instance may be specified. The ordinary classification does not deal with any depth beyond three feet. As a rule that is sufficient for the approximate valuation required, but with this classification two fields may be valued alike which may be of diverse value in that in the one irrigation water may be found at a short depth and in the other at a very great depth; or in the one if wells are dug sweet water will be found and in the other salt water unfit for irrigation. Here again a differentiation is needed which was not provided for in the "Joint Rules."

The application of advantages is regulated by prescribed scales. Some of these advantages have been elaborated into large measures of extensive application, such as the "sub-soil water advantage," the "general position class." To correct a common misunderstanding it may be added that, whatever be the application of such methods of making the relative valuation more correct than it was, it can have no effect on the actual assessment imposed on a tract as a whole.

Settlement operations confined to one táluka at a time.

18. In the final operation of settlement it has always been the practice to include no larger area than a single táluka, and often only a small group of villages. This enables the officer proposing the settlement to give the most minute consideration to the condition and requirements of the tract of country with which he has to deal, and at the same time permits close scrutiny of his proposals by the reviewing authorities and by Government. A further advantage of this method of proceeding is, that it affords an opportunity of observing the working of a settlement on a small scale and judging of the suitability of rates applied to a limited extent of country before imposing them over a large area.

Term of Settlement.

19. The maximum term of settlement is thirty years, except in the province of Sind, where, owing to the still imperfect condition of irrigation, it has been thought desirable to adopt the shorter period of ten years.

20. Such are the general principles on which the revenue survey operations have been conducted in this Presidency, the whole of which except Native States and alienated villages has now been brought under the survey settlement.

Most of the tributary Native States have either introduced a survey settlement following generally the lines of the British survey themselves, or with the aid of the British survey, and the majority of alienated villages have been similarly brought under the survey tenure.

Necessity of legalizing Survey operations.

21. These operations had been in progress many years before any question arose as to the expediency of giving them legal sanction. A revenue survey was a measure for which there were sufficient precedents, the whole of the Dakhan having been surveyed by direction of the celebrated Malik Amber, and partial surveys having been executed under the Maráthá Government. The survey now under description had, therefore, all the legality that consonance with previous usage could give it. But with the progress of British administration the value attached to rights in the land, and the inclination to resist any attempt to encroach on them, were constantly increasing. The survey itself had largely contributed to this result, and as it advanced, and valuable interests became affected by it, a disposition to question the legality of its proceedings began to be manifested. It became, therefore, imperatively necessary to confer on these proceedings a validity which could not be disputed. Accordingly in the year 1864 a bill was introduced in the Legislative Council "to provide for the survey, demarcation, assessment, and administration of lands held under Government in the districts belonging to the Bombay Presidency, and for the registration of the rights and interests of the occupants of the same." This became law in the following year under the title of the "Bombay Survey and Settlement Act" (Act I of 1865). This Act confirmed previous settlements, empowered Government to "direct the extension of the survey to any part of the Presidency," defined the powers and duties of survey officers, provided for the demarcation of field and village boundaries, and the settlement by the survey officers of disputes connected with them, and for the erection and repair of boundary marks. It empowered the officer in charge of a survey to assess Government and alienated lands and required him, when making settlements of land revenue, to prepare a record showing all rights and interests in the land, and giving all other necessary information. It also provided for the administration of survey settlements, and empowered Government to direct a fresh survey, and to revise assessments on the expiration of a term of settlement. Shortly after the passing of the Act the settlement leases of the earliest settled tálukas began to fall in and in these field operations preliminary to the introduction of revision survey rates had to be undertaken. Indápur was the first táluka in which revision field operations were commenced. These operations were conducted on the same general principles which guided similar operations in the original survey and which are described above. The policy of this Government has from the beginning been opposed to entire re-measurement and re-classification, but as in the tracts settled during the infancy of the department the work of the original survey was found to be too faulty and imperfect to be adopted as the basis for

Object of Act I of 1865 (Bombay).

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revision of rates, a general re-examination and revision of the old measurements and classification were found at first to be necessary. Gradually, however, as the tracts latterly dealt with by the original survey came up for revision the field work became more and more partial until in the tálukas last dealt with and in which the revision operations have now been completed the field work of the original survey was found to be sufficiently correct to be adopted for the purposes of revision settlements without any detailed test or re-examination. Advantage has been taken at revision to improve the old valuation with due caution that such improvement should not in any degree be a virtual tax on improvements carried out during the currency of a lease by the expenditure of private capital.

Land Revenue Code.

22. Until 1879 the law which governed these operations was contained in Act I of 1865. In this year Bombay Act I of 1865 was repealed and the provisions therein contained were re-enacted in the Bombay Land Revenue Code (Act V of 1879). In this Code, while all the provisions of Bombay Act I of 1865 relating to assessments in revision were re-enacted without any change, a new provision was inserted whereby a right was reserved to Government to take into consideration in fixing revised rates, certain classes of improvements effected by the owners or occupants from private capital. This provision was opposed to the fundamental principles of the Bombay settlement system, and further as it was considered likely to discourage the application of private enterprise and capital to agriculture, Government in 1884 issued an executive order giving a general assurance that all improvements effected by occupants from private capital should be exempt from taxation in revision and further restricting the enhancements in revision settlements to the limits prescribed in the following rules :—

Limitation of enhancements and non-taxation of private improvements.

1st.—The increase of revenue in the case of a táluka or group of villages brought under the same maximum dry-crop rate shall not exceed 33 per cent.

2nd.—No increase exceeding 66 per cent. shall be imposed on a single village without the circumstances of the case being specially reported for the orders of Government.

3rd.—No increase exceeding 100 per cent. shall in like manner be imposed on an individual holding.

Amendment of Land Revenue Code.

23. Notwithstanding this assurance it was considered inadvisable to retain the objectionable provision above referred to in the statute book and it was accordingly amended by Act IV of 1886, whereby the following two principles have been laid down for the guidance of settlement officers in fixing rates in future revision settlements :—

(1) That assessments will be revised on consideration of the value of land and the profits of agriculture, and

(2) That assessments will not be increased at revision on account of increase to such value and profits due to improvements effected on any land during the currency of any previous settlement by or at the cost of the holder thereof.

Financial results of Revenue Survey.

24. Before proceeding to describe the several land tenures which obtain in different parts of the Presidency, it seems desirable to show approximately the financial results of the revision settlements introduced into the Presidency from the commencement of the Department up to its disbandment on 31st March 1901. These results are as follows :—

No.	District.	Revenue Realizations according to former Settlement.	Revenue Realizations under Revision Settlement.	Percentage Increase.
	Presidency Proper.	Rs.	Rs.	
1	Ahmedábád...	8,74,265	10,99,018	25·7
2	Kaira	13,30,021	15,32,057	15·2
3	Panch Maháls	1,10,427	1,11,934	1·4
4	Surat	13,11,282	14,08,954	7·4
5	Broach	15,58,338	14,50,742	—6·9
6	Thána	10,05,914	13,64,385	35·6
7	Khándesh	29,69,635	38,62,109	30·5
8	Násik	11,29,770	14,69,723	30·1
9	Ahmednagar	11,76,900	15,12,309	28·5
10	Poona	9,72,165	12,81,699	31·8
11	Sholápur	8,56,924	11,49,492	34·1
12	Sátára	13,19,568	17,17,891	30·2
13	Belgaum	11,05,172	14,36,165	20·9
14	Bijápur	8,56,355	10,79,438	26·0
15	Dhárwár	13,01,363	18,88,696	45·1
16	Kolába	10,29,332	13,21,791	28·4
17	Ratnágiri	10,00,262	9,89,167	—1·1
18	Kánara	6,53,976	9,78,413	49·6
	Sind.			
19	Karáchi	5,84,360	4,22,101	—27·8
20	Hyderábád	15,61,703	17,36,882	11·22
21	Thar and Párkar	7,47,829	10,91,595	45·97
22	Lárkhána	21,08,276	21,95,181	4·12
23	Sukkur	10,68,881	12,54,197	17·34
24	Upper Sind Frontier	6,31,844	8,96,808	41·94
	Total ...	2,72,64,562	3,32,50,747	21·9

Summary.

Realizations prior to Settlement.	Realizations under Settlement.	Amount of Increase.	Total Cost.
Rs.	Rs.	Rs.	Rs.
2,72,64,562	3,32,50,747	59,86,185	3,01,59,144

The figures in the above statement are for the various districts as they existed at the time of settlement. The extensive territorial re-arrangements carried out about the year 1867-1868 render it impossible to show the results for the different collectorates as now organised without much labour.

The Survey Tenure.

25. The most important feature of the Bombay Survey Act (now embodied in the Bombay Land Revenue Code Act V of 1879), as it affects interests in the land, is the definition of the right of occupancy. This right is declared to be simply conditional on the payment of the Government demand, and to be a transferable and heritable property continuable without question at the expiration of a settlement lease, on the occupant's consenting to the revised rate. The right of occupancy, which has thus received legal recognition and sanction, is commonly known as "the survey tenure"; and though the complete security of the title it confers has in most cases superseded the ordinary tenures previously existing, these may here be briefly described for the purpose of comparing them with the new tenure obtaining in all settled districts. Definition of the Survey Tenure. Tenure previously existing.

Area held under different tenures.

Nature of tenure.	No. of Estates or Holdings.	No. of Villages.	Area in Acres.	Remarks.
1 Rayatwári Khálsa surveyed. (A) Peasant proprietors paying separately.	1,128,644		27,373,786	In the Rayatwári area the acreage is for occupied land only. The area of other Estates is given in the gross and includes unarable and unoccupied land.
1 Rayatwári Khálsa surveyed. (B) Peasant proprietors holding lands at privileged rates.	212,356	22,305	4,402,417	
2 Tálukdári	531	531	1,422,002	
3 Mehwási	62	62	120,384	
4 Udhad Jamábandi	525	525	879,972	
5 Khoti	2,817	2,817	1,910,241	
6 Izáfat	31	31	37,200	
7 On lease	13	13	25,400	
8 Revenue free, that is, Ináms and Jághírs ...	2,191	2,191	5,321,979	
Total ...	1,347,170	28,475	41,493,381	

NOTE.—Narwa and Bhágdári tenures are included in Rayatwári Khálsa.

Tenures in the Dakhan.

26. Previous to the survey settlement all land in the Dakhan, not alienated, was held by two classes of occupants. The first was the mirásdár, or tenant with right of occupancy; the second was the upri, or tenant-at-will. The mirásdár was the freeman of the village, his land was heritable and transferable, and he held at a fixed assessment, though under the Maráthá Government he was liable to demands on account of extra cess. In former times the name of mirásdár carried some degree of distinction with it, and the position was regarded as an enviable one. It could be acquired by simply consenting to pay the Government demand on the entire area in occupation, whether cultivated or not—an essential condition of the mirás tenure—and by the payment of a fine. The most remarkable incident of the tenure was that it was nominally at any rate not subject to forfeiture for default of revenue payment or even for the abandonment of his village by the mirásdár, unless he was absent for a longer period than thirty years. If in this respect, however, he enjoyed an apparent advantage unknown to the survey tenure, there were counterbalancing circumstances in his position which rendered it greatly inferior to that of the occupant under the survey settlement. For he was not only liable to extra and arbitrary impositions, but was required to make good the claims of the Government on defaulting brother mirásdárs. The assessment also was so high as to leave an unimproved land absolutely no margin of rent to the mirásdár. The privilege of re-entry within a period of thirty years after relinquishment or failure to pay was subject to the obligation of reimbursing all arrears due and expenses incurred during the period of absence. This condition was regarded by Mr. Chaplin as rendering virtually nugatory the privilege in question. According to the same authority a mirásdár could also be compelled at any time to give in a deed of renunciation if he declined to sow his lands or pay the Government dues. There is no practical distinction between this penalty and forfeiture for contumacy in withholding Government revenue. The Mirás Tenure.

27. The "upri" had no status in the village in which, as the name imports, he was regarded as a stranger. He cultivated the common lands of the village or those of absentee mirásdárs, but had no proprietary interest of any kind in either. On the other hand, he could The Upri Tenure.

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not be called on to pay revenue on any larger area than that actually under crop, nor be held liable for the default of other cultivators. The assessment of his land was also lighter ordinarily than that of the mirásdár. In the case of the "upri," then, fixity of tenure has been substituted for tenancy-at-will, but coupled with the greater responsibility necessarily attaching to a settlement leased in definite areas.

Comparison of these with the Survey Tenure.

27. To recapitulate: the advantages enjoyed by the occupant of land under the survey settlement are—

1st.—A separate settlement with Government.

2nd.—A lease guaranteed for thirty years or other fixed period, terminable by him as to the whole or part of his holding at the expiration of each year, but by Government only on his failure to pay the assessment.

3rd.—His occupancy is heritable and transferable by gift, sale, or mortgage, without other restriction than the requirement to give notice to the authorities.

4th.—He is at liberty to resign his entire occupancy or any part thereof which is separately recognized in the survey and village records in any year, provided notice be given by a fixed date. If waste land be available, he may enlarge his holding at pleasure on application to the district officials.

5th.—He may sublet his lands, and Government will assist him, under certain limitations in recovering rents from his tenants.

6th.—His holding cannot be encroached on by his neighbour, every recognized subdivision of it being clearly defined by boundary marks and susceptible of immediate identification by means of the village maps and registers. Further, the fact of his possession of any field or sub-division of it can be traced without difficulty in the village records year by year up to the date of the introduction of the first survey settlement. Thus the chances of dispute and litigation are entirely removed, or reduced to a minimum.

7th.—The right of the occupant to a renewal of the lease on the expiration of the term, at revised rates fixed not with reference to any improvements made by the occupant from private capital and resources during the currency of any settlement under Bombay Act I of 1865, or V of 1879, but with reference to general considerations of the increased value of the land, whether as to soil or situation, prices of produce, or facilities of communication.

Subject, then, to the payment of the Government assessment, the occupant of land under the survey tenure may be said to enjoy every right of property that he can desire, with the advantage of possessing a title the most simple and complete that can be imagined. The chief principles of the tenure thus described have been also adopted in Berár and Mysore.

By Act VI of 1901, the Collector is empowered to grant occupancies for limited periods in land to which a survey settlement has been extended or to impose conditions of inalienability.

Tenures in Gujarát.

The Tálukdári Tenure.

28. The tálukdári is one of the most important tenures in Gujarát. It prevails, principally, in the western Districts of Ahmedábád adjoining Káthiáwár. The tálukdári districts proper are:—Viramgám, Dholka, Dhandhuka, Sánand and Gogha. The area under this tenure is about 1,466 square miles. (There are also tálukdári estates in the Broach Collectorate and the Panch Mahals, aggregating 266 square miles in area.) The estates of the Náiks in the Dohad Táluka of the Panch Mahals, of an area of 90 square miles, are also held on what is practically the tálukdári tenure. It has, however, been ruled in their case that the Náiks cannot be considered absolute proprietors of the lands.

Tálukdárs defined.

29. The tálukdárs are yeomanry, mostly of pure Rajput race, descended from Hindu chiefs of ancient lineage. Some are of mixed Rajput and Koli race and some are Musalmans. The Tálukdári districts comprise numerous estates, great and small (the successive partitions of generations), and each property now consists of one, two, or more villages. The Rajputs on each property number from about 50 to 200, the steady growth of branches and offshoots of the original single tree. The tálukdárs are the chiefs of their people—gentlemen who consider all manual labour degrading, and live on the hereditary share of the produce of the lands cultivated by their tenants-at-will.

Position of a Tálukdár under Act VI of 1862.

30. The tálukdárs of the Ahmedábád District according to Bombay Act VI of 1862 are absolute proprietors of their respective estates, subject to the payment of the *jama* or Government demand, which is fixed for a term of years at the expiry of which it is subject to revision. Each principal sharer (muksh Bhágdár) has his own portion of the village site in which those families who cultivate his lands reside. He is competent to give in *pasaita* or mortgage for the term of his life or with the sanction of the Tálukdári Settlement Officer for any term his own lands, and he allows village servants the grain produce of certain fields unless as in some cases they receive cash emoluments. He is responsible for his quota of the *jama*, but has no authority to alienate permanently any part of his estate without the sanction of Government, under section 31 (2), Act VI of 1888. The tenure in Broach and Kaira is very much the same in Ahmedábád, except that the *jama* is *udhad* or fixed and is not liable to periodical revision.

System under which Government demand is levied.

31. Under the system which has been introduced into the Dholka Táluka at its revision settlement in 1893, and which is about to be introduced into the other tálukas of the Ahmedábád District, the only Government demand from the tálukdári estates as such is that for the *jama* on *darbári* lands, *i.e.*, lands not alienated but paying rent to the darbár or tálukdár. This is paid in cash by fixed instalments. As it was found that the Civil Court would not assist tálukdárs in recovering *sanadi salámi* (or quit-rent on lands alienated from the darbár) from their alienees, this item of quit-rent no longer forms part of the Government demand and lands formally recognized by Government as alienated are entirely exempt from *jama*. All lands which have not been so recognized are treated as darbári and are liable to assessment to *jama* which is paid by the tálukdár.

The local fund cess which is levied under Act III of 1869 is now calculated at the rate of one anna in every rupee of the survey assessment of the estate, not as formerly at an anna in every rupee of the *jama*. This is paid primarily by the tálukdár who is entitled to recover from his tenants such portion of it as is due for lands held by them.

32. If a shareholder fails to pay his *jama* his share is generally attached and managed by Government who satisfy the demand for *jama* and pay the balance of the income to the defaulter after deducting a sum for expenses of management. The old system of appointing one of the sharers as *wahiwatdár* or manager has altogether disappeared. In common with all other holders of land the tálukdárs are responsible for the preservation of boundary marks on their estates, and are subject to the provisions of the Land Revenue Code, 1879, in this as in other matters.

Tálukdári Estates in the Panch Mahals.

33. In the Panch Mahals the estates of the tálukdárs of the Godhra and Dohad Tálukás have been surveyed, classed and assessed according to the survey principles. The *jama* they have to pay has been fixed in reference to the survey assessment and is liable to vary at each revision of rates.

The estates of the Kálol, Hálol and Jhálod Tálukás have also been surveyed and classed, but, owing to the destruction by the Surat fire of 1887 of the survey records, not assessed. In their case also the present *jama* paid to Government is liable to enhancement at future settlements.

In consideration of the prospective enhancements of *jama* Government have foregone all claim to *judi* (quit-rent) on alienations in the tálukdári estates of the western Mahals. A four-anna settlement has been imposed on the alienations claimed by the leaseholder Náiks of Dohad. In similar estates in Jhálod the question is still undecided. The above concession was accompanied by a prohibition of all future alienations of whatever kind.

The local fund cess of one anna in the rupee is levied on the full assessment of tálukdári villages in all the tálukas except Godhra, where in the case of Mehlol it is levied under special orders on the *jama* only and in the rest of the villages on the lands cultivated.

Extent of Government interference in the management of the Tálukdári villages.

34. Except under the circumstances alluded to below Government does not interfere in the management of tálukdári villages, save that it provides under Act VI of 1888 for the entertainment at the tálukdár's expense of what it considers an adequate police establishment, and under the same Act prohibits, without the sanction of the Governor in Council, the permanent alienation of any lands forming part of a tálukdári estate. A tálukdári estate may be taken over and managed by Government under Act VI of 1888 in any of the following circumstances:—

(1) When there is a dispute among the sharers or reason to apprehend danger to the peace of the country or injury to the well-being of the inferior holders.

(2) When partition is being effected, pending such partition.

(3) On the application of the tálukdár himself.

A tálukdári estate is also liable to attachment and management under the provisions of the Land Revenue Code.

35. There are two systems in force for the levy of rent by the tálukdár from his tenants. The oldest and most common is that of *bhágbatai* or crop share. According to this system the partition of produce between landlord and tenant is determined by the *dháro* or village custom, which has in many cases been reduced to writing. The value of the crop is estimated either by calculation from the ascertained value of test areas while it is still standing (*dhal* = appraisement) or by actual weighment after the crop has been removed to the grain-yard, where the produce of each tenant's holding is kept in a separate heap until its value has been ascertained. A certain proportion is deducted from the whole for seed and the perquisites of various village servants and the remainder is divided in the proportions sanctioned by the custom of the village between the tálukdár and his tenants. The average share taken by the tálukdár has been assumed to be 50 per cent. of common grains, 40 per cent. of wheat and 48 per cent. of cotton.

36. The second system is that known as *bighoti*, and in tálukdári villages there are two varieties of it. *Bighoti* means rate per acre or more strictly, per *bigha*, but the rate may be fixed with reference either to the capabilities of the soil, as in Government villages, or to the crop which is grown on it. The rates fixed vary in different parts of the district. In the Ahmedábád District the bighoti system has been introduced principally in those villages

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which have at one time or another been under Government management, but in Kaira and Broach it is in force in all the villages held on tálukdari tenure.

Vánta Tenure.

37. The *vánta* (divided) tenure (in contradistinction to *talpat*, paying full assessment) prevails more or less in certain villages all over Gujarát north of the river Tápti. When

Origin of the tenure.

the Mahomadans invaded Gujarát they found the country partitioned out into estates of large or small Chiefs, whom they forcibly deprived of all but one-fourth of their possessions, and the portion thus left took the name of *vánta* (divided). In some cases (where it is supposed there was no opposition to this spoliation) the *vánta* was granted free, and where the contrary was the case it was burdened with a *salámi* or quit-rent, which remains to this day; but there is no record, nor even tradition, to show on what principle quit-rents were imposed. No holder of *vánta* lands has any documentary title, and the limits of the same are determined from the first trustworthy record prepared under British rule, as contained in the village accounts. Certain *vánta* estates pay *tribute* in the shape of an *udhad jama* or are in some cases rent-free and subject to the summary settlement cess only. Isolated *vánta* lands may be rent-free or subject to quit-rent. The lands held on this tenure are mostly in the hands of Rajput Thákors of one class or other. There are a few villages to be found in which the lands are divided into two portions, called respectively *vánta* and *talpat*, each defined by some fixed boundary, such as a river, a road, or a stream, the village site itself being also divided. The *vánta* portion is held either rent-free or subject to a *salámi* or quit-rent.

38. *Senja*—undivided, in contradistinction to *narvádári*, *bhágdári*, and other divided villages—is the ordinary *rayatwári* or Government tenure of the province, the assessment being placed on each revenue survey number, and the settlement made by Government directly with the occupant.

Narvádári and Bhágdári Tenures.

39. The peculiarity of the *narvádári* and *bhágdári* tenures is that they involve joint responsibility for the payment of the Government revenue. The first-named tenure prevails chiefly in the district of Kaira, a few villages being also found in Ahmedábád and Surat, while the latter is confined to the Broach Collectorate. There is one *khálsa* or Government village in the Panch Mahál which is held and has been settled on the *bhágdári* tenure.

The Narvádári Tenure.

40. The lands of *narva* villages consist of certain main divisions (*muksh bhág*), containing sub-shares (*peta bhág*), which, in their turn, are up to a fixed limit divided into fractional parts. The head of each estate or main division is called a *muksh bhágdár*, and is responsible for the payment to Government of the assessment leviable on the whole share. Similarly the holders of sub-shares of a main division (the *peta bhágdárs*) are collectively responsible for that portion of the assessment which has been allotted to their several sub-shares. All sub-sharers have equal rights, are called *pátidárs*, and are descendants of the old proprietary cultivators. The shares or divisions, great and small, are sometimes of equal and sometimes of unequal amounts, but always in well-known and recognized proportion, so that the assessment due by the whole village is exactly apportioned among them. As the *narvádári* and *bhágdári* tenures had been acknowledged and preserved under Act V of 1862, special arrangements were required for the settlement of villages in which these tenures existed. The register of existing shares was accepted, and the lump sum due from the village, with the exception of the assessment on the common (*majmun*) land, was apportioned among the different shareholders according to the values entered in the register of the *phálavni* or rate of apportionment.

Settlement of common (Majmun) Land.

41. It is seldom that the whole of the land of a *narva* village is included in the *narva*. There is almost always a portion of common (*majmun*) land. This land is in some cases in possession of the sharers, not as *narva* land but as *majmun* (it is then called *bhág majmun*), in which case they are responsible for its assessment according to their occupancy. Where not so, it is managed like that of an ordinary *senja*, or undivided village, quite distinct from the *narva*.

Varieties of Narva Tenure.

42. The *narva* villages are not all constituted precisely alike: there is for example—

(1) The perfect *pátidári*, in which all the lands are held in severalty by different proprietors, each person managing his own land and paying his fixed share of the assessment, the whole being jointly responsible if one sharer cannot fulfil his engagements. This is the ordinary *narvádári* and *bhágdári* tenure which exists in a large majority of the villages.

(2) The imperfect *pátidári*, in which part of the land is held in common and part in severalty, the profits from the common land being first appropriated to payment of the Government revenue made up according to rate on the several holdings. The peculiarities of each have been upheld by the new settlement.

Under the survey system many *narva* village communities have been allowed, at their own wish, to divide their respective responsibilities for the revenue, according to the assessment of their respective shares, instead of according to the old symbolical division (*phálavni*) of the lump assessment responsibility originally entered in the register of the *narva*.

Position of tenants in Narva and in Bhágdári Villages.

43. In *narvádári* and *bhágdári* villages all persons cultivating *narva* or *bhágdári* lands, whatever rights they may have, are tenants, not of Government, but of the *bhágdárs*, who are alone responsible for the revenue. They are—

(1) Tenants-at-will, holding at the pleasure of the *narvádárs*, who can eject them, or increase their rents at discretion.

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(2) Customary tenants, who cannot be ejected so long as they pay the customary rental, which is either a fixed share of the produce or more commonly the customary *bighoti* rates, which are generally recorded in the village books.

Soon after the introduction of the survey settlement a "record" is prepared, setting forth the respective rights of the superior and inferior holders. These records have not, however, the force of judicial decisions.

Difference between the Bhágdári and Narvádári Tenures.

44. The *bhágdári* tenure differs from the *narvádári* in one important particular only, *viz.*, that in the former there was always a fixed *bighoti* assessment on each field; and although the assessment of each share (*bhág*) was not the aggregate of the assessments of the several fields which the share comprised, it was the amount of the total field assessment of all *bhágdári* lands, divided according to the register (*phálavni*). In the *narvádári* tenure, on the other hand, there was never a separate field assessment, the revenue being fixed in the lump. It will be seen that, although the *narva* and *bhágdári* tenures have been preserved in their integrity by the survey, yet the amount of revenue to be paid in the lump has been ascertained by a field assessment: so in the event of a contingency arising, such as is contemplated by clause 2 of section 8 of Regulation XVII of 1827 (reversion to Government on account of non-payment of revenue), the survey rates could at once be introduced in exactly the same way as in ordinary Government (*senja*) villages.

Mehwási Tenure.

45. In some parts of Gujarát, *viz.*, on the banks of the river Máhi and in the Paránti Táluka and Modása Mahál of the Ahmedábád Collectorate, certain villages are held on what is known as the *mehwási* tenure, and pay the revenue in a lump sum, the amount of which has hitherto fluctuated at the discretion of the Collector. These villages are held by the descendants of Mehwási Koli or Rajput Chiefs, once great freebooters and the terror of the country. The principal shareholders are generally *Thákors* and are called *muksh bhágdárs*,* the sub-sharers being known as *peta bhágdárs* as in villages held on the *narva* tenure. Most of these villages were originally held rent-free, or subject to a small tribute. Conditions were generally attached to the tenure, such as the police management of a small portion of the country, the keeping open of certain roads infested by robbers, or forbearance from plundering on the part of the holders and their fraternity. Under British rule and a better system of police these conditions are, of course, unnecessary, and the villages are held subject to the payment of the *jama* only. Of late years, *talátis* (village accountants) have been introduced into some attached mehwási villages, and the *jama* collected from the shareholders, who sublet their lands either on cash or grain rents. The steps which were taken in 1877 to introduce the revenue survey into these villages were rendered futile by the destruction by fire of the survey records at Surat in 1887, but some of the villages have recently been re-surveyed and they are to be treated in the same way as Tálukdári villages as regards the imposition and levy of a *jama*, which will be proportioned to their survey assessment and will be liable to revision at the end of a term of years.

In the Kálol Táluka the headmen of 23 villages with their sharers under the name of Mehwási *patels* claim certain privileges amounting to a distinct tenure. It was decided (1887) that this tenure did not correspond exactly with the *narvádári* or *bhágdári*, but more nearly approached that of the Tálukdári villages in the Ahmedábád Collectorate, and that the villages undoubtedly fell within the category of those described in section 8 of Regulation XVII of 1827 as held by shareholders settling hereditarily, and, under certain terms, were at the same time offered to the *patels*, but it was not until 1887 that a settlement was arrived at. The tenure has now been recognized in 21 villages, and its more important conditions are that the *patels* have a lien on their waste lands on condition that they limit their demands on their tenants to the survey assessments and pay as *jama* certain proportions of the assessments of the cultivated lands held by themselves and their tenants. The proportion varies according to the area of forests reserved in the villages and the forest rights of Government in the waste lands have been maintained though liberal privileges have been conceded. The *patels* (headmen) employ their own *talátis* (accountants), but are under obligation to keep accounts and furnish statistics.

Máleki Tenure.

46. In the Thásra Táluka of the Kaira Collectorate is a clan of Mahomedan yeomen known as the "Máleks," who hold their villages on a special tenure, the origin of which is as follows:—

Nearly four centuries ago Mahomad Begada, Sultán of Ahmedábád, granted as a reward for military services, at the taking of Pávágad (a celebrated hill-fort near Chámpáner), 12 villages to certain Musalmán families, known as Málekjádás. On the introduction of British rule these 12 villages had, by the founding of new hamlets, increased to 17. They are now 27 in number, into all of which the new settlement has been introduced. These villages seem to have been originally rent-free, and so continued for 2½ centuries. About 150 years ago the Máleks were compelled by the Maráthás to pay a fixed tribute (*udhad jamábandi*) on their villages. Soon after (about 1769) the *Mulukgiri* army of the Gáikwár levied an additional tribute, called *ghásdána*,† which was continued till the introduction

* *Muksh* and *Peta bhágdárs* are perfectly general terms. In *Mehwási* villages the sub-sharers are known as "bhagats."

† "Ghásdána" is a combined word meaning "ghas" grass and "dána" corn. This was not *regularly* collected, but the Gáikwár's cavalry sallied out in one direction one year and in another direction next year. Ghásdána was always exacted by force (*vide* Book III, Chapter V, of Rás Málá).

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of British rule, when this exaction was commuted and paid by the British Government to that of the Gáikwár. Besides this, several Máleki villages were subjected to a tribute payable to the Bábi of Bálásinor, which was also commuted and paid by the British Government to the Bábi. To meet the Maráthá tribute (*udhad jamábandi*) demand the Máleks levied from their cultivators a poll-tax (*karam vero*) and a tax in kind (*waje*) amounting to one-third of the produce of the land.

Present Settlement.

47. In 1865, the Máleki villages were measured and valued by the revenue survey, and a settlement introduced, which has since been confirmed by the grant of sanads to the different Máleks.

Udhad Jamábandi Tenure.

48. In some whole villages, or parts of villages, *vánta* lands entered as *sarkári* or Government are held on *udhad jamábandi* tenure, which means that they are liable to a fixed cess (*jama*) only, such *jama* remaining intact even at a general revision of assessment, there being a "right on the part of the occupants in limitation of the right of Government in consequence of a specific limit to the assessment having been established and preserved." Other villages, not *vánta*, are also held on this tenure. These villages have been surveyed in the lump only, and the fixed assessment has remained intact. A few, however, in the Kaira Collectorate, which have been under the management of the Collector and of the Tálukdári Settlement Officer as embarrassed estates, have had and are now having their lands surveyed and classed in detail, with a view to the survey settlement being introduced.

Sarákati Tenure.

49. A few villages in different parts of the province are held on what is called *sarákati* tenure. The term *sarákati* is derived from the Arabic, meaning a partner. In these villages Government is entitled to a certain proportion of revenue, and the holders to the balance; the proportion of the respective shares varies from 10 to 6 annas. It is not unlike what the Máleki tenure has now merged into, the holders having in both cases the right of occupying and subletting all their lands, subject to the payment of the fixed proportion of revenue due to Government.

Alienated Lands.

50. The wholly or partially alienated lands in Gujarát are extensive and of various denominations, the principal being—

Chákariat of all denominations (lands held for service);

Pasaita (land given in charity or to artificers, Bháts, Chárans, or others);

Háriya (the price of blood or reward for defence);

Wazifa (an alienation to religious persons of the faith of Islám).

These may be *nakra* (rent-free) or *salámia* (liable to quit-rent). These again may be *vechánia* (sold) or *garánia* (mortgaged), and are then described and known as *pasaita-salámia, pasaita-vechán-salámia, pasaita-vechánia-nakra, háriya-garánia-salámia,* and so on.

All the lands, with the exception of *chákariat,* are now *sanadia* or held by sanads under the Summary Settlement Act, and are entered in the accounts under the one distinctive title of *ját inám sanadia,* the old denominations of *pasaita vechánia, garánia nakra,* and so on, not being retained. Lands granted to temples and religious corporations as distinct from individuals (called *devasthán* or *dharmádáya*) are also excluded from those under the title of *jat inám sanadia.* Sanads have not been issued for *chákariat* lands, including those held by district officers who have elected to do service for them.

TENURES IN THE KONKAN.

I.—Northern Konkan.

The Survey Tenure.

51. Land in the Thána Collectorate is held almost wholly on the survey tenure, the occupier having in general had no right so good as that conferred by the survey. There is no *mirás* tenure properly so-called, but a considerable quantity of land was previously called *suti,* and held on a tenure analogous to that of *mirás,* but not so advantageous. This tenure has, however, been merged in the survey tenure which is in fact scarcely, if at all, less valuable than the old *mirás.*

Other Tenures.

52. The exceptions to the survey tenure in the Northern Konkan are as follows:—

1st.—A considerable number of *khoti* villages, chiefly in the Sálsette Táluka.

2nd.—A number of *izáfat* villages scatter over the different tálukas.

3rd.—Lands known as *shilotri* lying either along the coast or along the larger creeks.

There are, of course, a number of villages held in ordinary *inám,* and also the usual service *vatans,* but these differ in no way from the same tenures in the rest of the Presidency.

Khoti Tenure.

53. It is necessary to distinguish clearly between the *khots* of the Northern and those of the Southern Konkan. Those of the Northern Konkan are, in fact, leaseholders (though more commonly called farmers) of a certain number of villages, several being generally held in one family, and they obtained their land in all cases from the British Government, though at an early period. They have never claimed to be the proprietors of the soil, and the title and rights of those who hold land under them are in no way affected by the fact of these *khots* having their villages in lease. Most of the *khoti* villages have been measured, and the survey settlement introduced, and, therefore, in all such villages the survey tenure is in force. The former rights of the tenants, which are distinguished as *suti* (described above) and *chikli* or *gatkuli* are only in force now in the few villages not yet surveyed.

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54. The *Izáfat* tenure is a variety of service tenure, of hereditary district officers chiefly Deshmukhs and Deshpándis. At the introduction of British rule there were 124 villages under this tenure. They were resumed and managed by Government as the duties of the hereditary district officers had become useless during the continuance of the Maráthá farming system. When it was decided to restore the villages to their former holders, most declined to resume charge, and the number remaining of *Izáfat* tenure fell to 16. When the *Izáfat* villages of the Panvel Táluka were surveyed it was decided that the holders were liable to pay the full survey assessment, but as no assessment was placed on any but rice land, the holder enjoyed under the thirty years' lease the profits of *warkas* (dry crop) cultivation. In the villages of other tálukás the survey tenure was introduced, but the Izáfatdár was allowed 10 per cent. of the revenue as remuneration for the collection of the assessment. The lease of the Panvel Izáfat villages having expired, it is now under consideration whether a similar remuneration should not be allowed to the holders, the full assessment on *warkas* as well as rice being levied. *Izáfat* villages are in fact now held on the survey tenure, the Izáfatdárs holding a position analogous to that of superior holders.

Izáfat Tenure.

55. *Shilotri* lands are lands that have been embanked and reclaimed from the sea, and the permanence of which is dependent on the embankments being kept up. These reclamations are commonly known as *khárs*. The tenure is of three varieties—1st, *shilotri* proper under which the *khár* belongs to the person by whom it was reclaimed or his representatives. The *shilotars* are considered to have a proprietary right, they let out these lands at will, and according to old custom levy a maund of rice per *bigha*, in addition to the assessment, for the repair of the outer embankments. These lands were surveyed and re-assessed at the survey in the same way as Government lands. The second class of *shilotri* lands is that in which either Government reclaimed the *khárs*, or became possessed of them by lapse. The cultivators of these *khárs* hold their land just as other survey tenants do; but an extra assessment, which is supposed to represent the *shilotri maund* mentioned above, is appropriated to the repairs of the embankments. The third class of *shilotri* lands is that in which reclamations were made by associations of rayats on special terms made with Government. This variety of tenure is distinguished from the shilotri tenure proper by the term *kularg*. In *kularg khárs* the tenants carry out repairs of embankments jointly, each having a share of the land and assessment recorded against his name.

Shilotri Tenure.

II.—Southern Konkan.

56. In the Kolába (excluding the tálukas of Karjat and Panvel which have recently been transferred from Thána to Kolába and which none the less still belong to what is called the Northern Konkan) and Ratnágiri Collectorates the survey tenure is quite the exception. It prevails generally in the two northern tálukas of Kolába, but in the remainder of that district and in the whole of Ratnágiri it is found only in those villages which happen to be Government property (*khálsa*) and in surveyed *khoti* villages where there are *dhára* lands and *kowli* lands held on new leases. In the northern part of Kolába there are a few villages held on the *izáfat* tenure already described. Otherwise the *khoti* tenure is the prevailing one, though there are a number of proprietary rights in all these villages independent of, and in some cases older than, those of the *khots*.

The Khoti Tenures.

57. With regard to the *khoti* tenure, its principal features are undisputed, or nearly so. Though most people believe the khots to have been at first, and not more than about 350 years ago, simply farmers holding on leases for the improvement of the country, yet it is now generally conceded that they must be considered as limited proprietors. Theoretically their position is very much that of Bengal zamindárs without the permanent settlement, for it has never been doubted that they are liable to increase of assessment. But owing to the smallness of their estates and in many cases to the high assessment they have to pay, and to the fact that their villages having descended in most cases by the Hindu law of inheritance are held by a large number of co-sharers, it is much safer to ignore the superficial resemblance which exists between them and the zamindárs. The chief undisputed points of this tenure are as follows :—

Its chief characteristics

1st.—The right to hold their villages on payment in instalments, of the lump assessment fixed on all the village lands by the Settlement Department, provided the annual agreement (*kabuláyat*) be given to Government by members of the *khoti vatan* authorized to give it. On failure of payment, or if the *kabuláyat* be not given, the village is liable to attachment, but is restored on payment of any loss that may have been caused to Government by the default of the *khots* in addition to the fixed assessment.

2nd.—The right to lease land in which there are no rights of permanent occupancy at whatever rents they may arrange with their tenants.

3rd.—The right to all lands which may lapse owing to the absence or failure (either temporary or permanent) of permanent occupants.

4th.—It is the duty of the *khots* to collect the assessment from all permanent occupants (*dhárekaris*) without remuneration, but they receive assistance from Government as superior holders.

58. The *khoti* tenure is said to have originated in the Subhedári of Dábhol, which extended from the Váshishti to the Devgad River, and which is nearly coterminous with the district occupied by the Chitpávan Bráhmans. Certainly south of the Devgad River, though

and origin.

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khots are still found, their powers are allowed to be much less than those of the *khots* farther north.

The Dhárekari Tenure.

59. The other tenures in the Southern Konkan are, first, the *dhárekari*, which differs but little from the *mirás* tenure of the Dakhan. The *dhárekaris* pay only the survey assessment which is liable to increase only at periodical revisions of rates ordered by Government, and are now in no respect dependent on the *khots*, though formerly no doubt they paid various cesses to them. They have the same rights of alienation as *mirásdárs*, and wherever the survey settlement has taken place the *dhára* tenure has been merged into the survey tenure.

In the Khed and Dápoli Tálukás of the Ratnágiri Collectorate there are a number of proprietors under the names of *dupatkari*, *pavani dupatkari*, and *daspatkari*, which are known under the Khoti Act as *quasi-dhárekaris*. These, however, differ only from the *dhárekaris* in that their payments to the *khot*, though fixed, are somewhat higher than the survey assessment, their rights in their land being in all respects similar to those of the *dhárekaris*.

Vatandár Kuls.

60. There are also a certain number of occupants generally known as *vatandár kuls*, or under the Khoti Act as occupancy tenants, who, it is acknowledged, cannot be dispossessed by the *khots*, and whose rights are heritable, but not transferable, unless they can prove that such right of transfer has been exercised independently of the consent of the *khot* within the thirty years ending with the revenue year 1864-1865. They continue to hold their lands conditionally on the payment of the rent from time to time lawfully due by them to the *khot*. These are supposed to be the descendants of those cultivators who held land in the villages before the *khots* obtained their grants. The remainder of the cultivators where the survey has not been introduced held their lands on payment of a proportion of the crop, the proportion being $\frac{1}{2}$, $\frac{1}{3}$ or $\frac{1}{4}$, according to the custom of the village and the nature of the crop. Under the Khoti Act all these tenants other than occupancy tenants continue to hold their lands subject to such terms and conditions as are agreed upon between the *khot* and themselves, and in the absence of specific agreement they pay rent to the *khot* at the same rates as are paid by occupancy tenants in that village.

Arrangements under Survey Settlement.

61. The survey settlement has substituted for this proportionate payment in kind a fixed cash assessment as the Government share, and under the Khoti Act the rent payable to the *khot* by privileged occupants is as follows :—

1. By a *dhárekari* the survey assessment of his land.

2. By a *quasi-dhárekari* the survey assessment of his land, and, in addition thereto, amounts of grain or money respectively set forth in the schedule annexed to the Khoti Act.

3. By an occupancy tenant such fixed amount, whether in money or in kind, as may have been agreed upon between the Khot and the said tenant, or on the expiry of the term for which such agreement shall have been made, or, if no such agreement has been made, such fixed share of the gross annual produce, not exceeding one-half in the case of rice land, nor one-third in the case of varkas land, and such share, if any, of the produce of the fruit-trees on the said tenants' lands as shall be determined to be the customary amount hitherto paid by the occupancy tenants in that village.

Reclamation leases.

62. Considerable tracts of land on the coast or along the sides of the larger creeks have been granted on reclamation leases. These lands were formerly either salt marsh land or sandy shore above high-water mark, the former being made into rice fields and the latter into cocoanut gardens. The leases in most cases specify that the land is held on special rates only until the survey shall be introduced. After the introduction of the survey such lands are, therefore, held on the ordinary survey tenure.

63. *Inám Tenures*:—For all practical purposes the tenures on which alienated holdings are now continued may be reduced to the following four principal classes:—

(1) Political. (2) Service. (3) Religious. (4) Personal.

Political.

64. Under the head of "political tenure" are included political pensions and what are known as *jághirs* and *saranjáms*. Grants of this description are to be found almost exclusively in the Collectorates of the Southern Division and in the Násik and Khándesh Districts of the Central Division. *Jághir* and *saranjám*, though the former is a term of Mahomadan and the latter of Maráthá origin, are understood to have similar characteristics, having been originally grants by the State for the performance of civil or military duties, or for the maintenance of the personal dignity of nobles and high officials. Under the British Government, however, no such distinctions are preserved; and the *jághirs* and *saranjáms* now in existence have, with some exceptions, where service is commuted into money payments, no condition of service attached to them, but are continued hereditarily or for one or more generations on political considerations alone.

Service Tenure.

65. The assignments of land or of money, held on what is known as "service tenure," are grants which impose duties on the holders. Such grants were originally made with a view to ensure the performance of certain services in each district and for each village. As no change has been introduced in the constitution of village communities, village service is still rendered in return for the grant of land or of money. But by the introduction of the revenue survey and the organization of a stipendiary police, the former system of district service

became obsolete, and the duties of the holders of district service assignments ceased. An arrangement has accordingly been introduced under which the holders of such assignments become, on repaying a portion of their emoluments, free from all liability to serve.

Religious Endowment.

66. Holdings granted by the former native governments for the support of Hindu and Mahomadan religious or charitable institutions, such as temples, mosques, &c., and continued under the British Government, come under the head "religious tenure." Such holdings are tenable in perpetuity, or so long as the institution for the maintenance of which they were originally granted, or are now held, may be in existence. They are entered in the public accounts under the head of *devasthán*.

Personal Tenure.

67. The head of personal tenure comprises that vast body of holdings which, though alienated by the former governments under various denominations, have been continued without any distinguishing peculiarity simply as personal *ináms* or unconditional grants enjoyed by individuals. Under the operation of the Summary Settlement Acts (Bombay II and VII of 1863) and other subsidiary settlements, personal *ináms* are for the most part continuable in perpetuity, and are transferable without any restriction whatsoever. Those, however, which do not come under the summary settlement mentioned above, do not carry with them the right of adoption.

THE LAND TENURES OF THE CITY AND ISLAND OF BOMBAY.

Brief history of early tenures.

68. In 1661 the Island and Town of Bombay was ceded by Portugal to Charles II in full sovereignty. In 1668 the King, considering Bombay an unprofitable possession, made it over to the East India Company to be held in free and common socage, as of the Manor of E. Greenwich, on an annual payment of £10 rent. Next year it was officially proclaimed that all acquisition of land by individuals prior to 1661 proceeded from imperfect right. The proclamation remained a dead letter and President Aungier in 1674 held a convocation and drew up an agreement which, though not signed and ratified by the East India Company, seems to have been regarded as valid and acted upon. It recognised all land then in occupation as private property subject to military service. This (the present "Pension and Tax" land) was then pronounced to be held, and now is held, under a tenure of which the holders can be deprived only on payment of compensation and then only when the land is needed for Cities, Towns or Fortifications. It is probable that at this date no leases had been executed and no rent paid. The occupants were tenants-at-will; the tenure was feudal. What land was actually in possession at the time is almost entirely conjectural, the map and survey records of 1674 never having been discovered.

69. In 1718 a tax (the present "Quit and Ground Rent") was imposed to reimburse the Company for the charges they were put to for fortifications. This tax may be said to have substituted a money charge for the liability to military service and ended the feudal tenure.

70. Though attempts were made in 1731 and at intervals for many succeeding years to establish the Crown's ownership of the land then occupied, all endeavours proved futile. In 1814 the payment by Government for all land acquired, the undisputed right of tenants to inherit and alienate land, and the indefinite period for which all leases had been granted were accepted as proof of the prescriptive right of the tenant as against the Crown.

71. Though the right of the Crown to resume land was thus limited, the right to tax was undisputed. The subjects of the King of Portugal had paid one-quarter of their produce. In 1674 this had been commuted by President Aungier for a pension, or fixed payment of rent, and liability to military service. In 1718 the tax to recoup Government for the expenses of fortification was imposed. Finally in 1758 a third payment, a tax of 2*s.* in the £ on the produce of all land, was exacted. Examination showed, however, that in 1814 these three payments had been irregularly levied. Some lands paid the pension, some the quit rent, some the tax, while others were held free.

Surveys.

72. No general settlement of Bombay has ever been effected. Before the beginning of the 19th Century the only surveys carried out were purely topographical and of no value for revenue purposes. The survey of 1811—1827, superintended in turn by Hawkins, Dickinson and Tate, reduced order into the confusion prevailing in the Island south of the line drawn from the Vellard to Tank Bundar, and determined the nature of the various tenures then existing. The survey of the Máhim Division north of the line was left incomplete till the time of Colonel Laughton, whose operations extended from 1865 to 1871. Act II of 1876 provided a means of checking and assessing encroachment. The result of the second survey and the Act is the existing system of tenures.

Existing tenures.

73. There are 8 tenures now existing—

1. Pension and Tax.
2. Quit and Ground Rent.
3. Foras.
4. Toka.
5. Leasehold.
6. Land newly assessed.
7. Tenancies-at-will.
8. Inám.

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The areas given below are those of 1872 :—

Pension and Tax (2,551 acres).—The name of this tax, which was first levied in 1674, is derived from the Portuguese *pencao* signifying a bonus or premium paid for the fee simple on the compromise of a doubtful tenure. The payments now made under the tenure retain their original character. There is no fixed rate per yard, the land is not measured and the lump sums paid on each holding bear no uniform proportion to the extent or value of the land held. The rates are in some cases as low as a fraction of a pie per square yard. Some lands still pay both 'Pension' and 'Tax,' others only 'Pension.' An explanation of the lowness of the rates levied as 'Pension' is to be found in the fact that it was originally levied on garden or rice land. The irregularity in the scale is due to the tax having been levied at so much per wheel used for irrigation. The cess is not subject to revision and is redeemable on payment of the amount of 30 years' rent. Pension and Tax land is situated entirely in Girgaon, Chaupáti, Válkeshwar, Cumbálla Hill and Máhim.

Quit and Ground Rent (973 acres).—The term, as above noted, implies freedom from liability to military service and from liability to enhancement. The rates are fixed at from 6 to 1½ reas per square yard in the Fort and 11 reas in the town (one rea = ½ pie). Quit and Ground rent land is situated in the Fort, Black or Old Town, New Town and Colába, the portions benefited by the fortifications for which the tax was raised.

Foras or Salt Batty Lands (3,408 acres) are held on payment of *foras* or rent, a term which now refers only to the rent paid on land given out at a low rate to people willing to improve it. In 1740 a proclamation was issued offering ground for cultivation at 4 reas per burga (60 square yards). The rent was raised in 1744 to 6 and in 1748 to 9 reas. The right to raise the rate was challenged by the holders and a long series of disputes led to the Foras Act of 1851, which declares against the power of enhancement. Foras land is situated at Byculla, Parel, Varli, Upper and Lower Máhim, Dádar and Mátunga.

Toka (1,489 acres) signifying a share of the produce, was originally paid in kind. Later a money payment was adopted at a rate fixed annually by special order of Government. In 1837 the rate was fixed at Rs. 20 per *mura* (1 *mura* = 25 maunds of rice). In 1879-1880 the rates were raised and fixed at various rates for 50 years. Toka land is situated at Parel, Bhoiwáda, Vadála, Naigaon, Sivri, Mátunga, Kher and Sion.

Leasehold land is held under various conditions and for terms varying from 21 to 999 years.

Land newly assessed.—Under this tenure fall lands assessed under Section 8 of Act II of 1876. Government have power to raise the rates.

Tenancies-at-will are held with or without agreements on sufferance at the pleasure of Government who, after giving the prescribed notice of one month, may resume the land. The rates are revisable at the pleasure of Government. Leasehold land, land newly assessed, land held under tenancy-at-will are to be found in all parts of the Island.

Inám land is situated mainly at Parel and Náigaon. The area is roughly 878 acres. The chief grants were to the Lavji Family in 1783 and to the heirs of Jamshedji Bomonji in 1821. The land pays no *judi* or cess of any kind.

The total area of the Island is 22 square miles 175 acres 1,897 square yards paying a revenue of Rs. 2,97,637. Of this Rs. 1,72,858 is fixed and Rs. 1,24,778 liable to revision.

LAND TENURES IN SIND.

Character of the present tenures.

74. The tenures on which land is now held in the Province of Sind are of a comparatively simple character. Doubtless in the ancient times of Hindu Nationality, and under Bráhman dynasties, the same complexity of land tenure prevailed in Sind as in other Provinces of India; but as successive waves of Mahomadan invasion and conquest passed over the Province, and when finally the bulk of the population had, forcibly or otherwise, been converted to Islámism, the ancient institutions must have gradually decayed, and given way to those brought in by the conquering race. The village system which is supposed, and probably with truth, to have once flóurished in Sind, has shared in the common decay. The group of families (Raj) acknowledging generally some one head, the Wadero or headman among Mahomadans, and the Mukhi or chiefman among Hindus, still survive, but all trace of an organization for administrative purposes, all trace of hereditary village officers with assigned duties and remuneration, has long since passed away. A new system of village officers has now been introduced under the Sind Village Officers' Act of 1881. Tapedárs are Village Accountants and supervising Tapedárs have been appointed everywhere, but none are hereditary. The system which was at first introduced into the Thar and Párkar District and a few other localities, of granting series or small patches of rent-free land to heads of villages which are continued to the heir if well-behaved or resumed if service in the suppression of crime is not properly rendered, has recently been extended to the whole Province and grants are being made on the recommendations of the District Officers. Hereditary Village Pagis or trackers are now employed all over the Province, but it is as yet a moot question whether this class of village officers have as a body proved to be as successful in the detection and investigation of crime as it was expected they would be.

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Land by whom held.

75. The land in Sind is held by a large number of peasant occupants, and by a small body, numerically, of large proprietors. At the present day there are, in round figures, 30,500 holdings under 5 acres, 59,000 from 5 to 25 acres, 26,000 from 25 to 100 acres, 9,000 from 100 to 500 acres, and 2,000 of 500 acres and upwards. Some in the last class hold large estates, but 5,000 acres is with a few exceptions the limit. Yet there are not wanting indications that, at a time not distant from the present, nearly all the land was held by large proprietors. Most of the land now in cultivation, and most of the waste land within range of existing or of former sources of irrigation, will generally be found to have at one time or other been in the occupation of some large proprietor. The ancestors of the petty holders of the present day were probably tenants, acknowledging by the payment of a portion of the produce the superior right of a zamindár. This state of tenure was a necessity of a period in which the weak had no security for life or property save in the protection of some powerful individual. It was equally necessary to the State, which had no agency at its command adequate to the task of collecting revenue from a vast number of petty cultivators, and was, therefore, compelled to make its settlement with as few and as wealthy individuals as possible. In course of time the zamindári rights in the land were purchased by the tenant, or lapsed on demise without heirs, or otherwise fell into disuse, and thus has sprung up the present large peasant proprietary class. There were, however, at the time of the conquest of Sind, a large class of poor cultivators, who cultivated in their own right.

76. Former tenures have been so modified by the introduction of the revenue survey into Sind that some description of the survey settlements introduced in the Province seems necessary, in order that the nature of the present tenures may be properly understood. At the conquest, and for many years after, the revenue was collected in kind. Sir Bartle Frere superseded it by a rough system of cash payments, and in 1863 a regular demarcation and settlement on the principles of the Bombay system was introduced. Leases of villages or estates were also given in some parts of Sind pending the introduction of the settlement.

77. The settlements existing in 1882-1883 were—

(1) The original settlement. (2) The revision settlement. (3) The irrigation settlement.

But the last original settlement came to an end during the decade ending with that year and the only five tálukas which were under the revision settlement in 1892-1893 have since been brought under the Irrigational Settlement, the last one (Rohri) with effect from 1902-1903.

78. These settlements were made on principles somewhat different from those obtaining in settlements in the Presidency. This difference arose from the fact that, owing partly to the poverty of the soil, and partly to the abundance of waste land, and partly, no doubt, to the absence of a sufficient supply of manure, it is not the custom (except in the case of rice lands) to cultivate the same land year after year. The land is consequently allowed to lie fallow from time to time according to the nature of the crop or means of irrigation, and hence arises the necessity for providing for fallows at the introduction of a revenue settlement.

79. In the "Original Settlements" the land was divided into large survey numbers, an estimate was made of the share of each that should, with a proper regard to the requisite fallows, be yearly cultivated, and the assessment proper to that share only was placed on the whole survey number. This was what is known as the "Diffused rate" system. At first the zamindárs and cultivators retained all the lands over which they asserted they had a right, whether they had means for cultivating them or not, and also retained cropped lands after exhaustion, paying the assessment on the whole. This involved them in great difficulties. But they soon learnt the plan of cultivating the whole of the survey number at once, and after exhausting it, throwing it up. Fresh land was then occupied, which was in turn treated in the same way. For example, assuming a field of 40 acres, the assessable value of which was Rs. 3 an acre, and that the soil required a 4 years' fallow, then on the assumption that $\frac{1}{4}$th would be cultivated yearly in rotation, the Settlement Department fixed a rate $\frac{40}{4} \times 3 = 30$ Rs. on the whole number, in the expectation that this sum would be paid for 4 years. But the farmer would cultivate the whole in the first year and then resign it, so that 3 years' assessment is lost. This system was found so detrimental to the revenue that on the expiration of the term (ten years) for which it was sanctioned it was abandoned in favour of a revision or an irrigational settlement.

80. In "Revision Settlements" the survey numbers were formed of small size, and full assessment having been placed on each, the zamindár could under certain rules allow his fields to lie fallow and yet retain his lien on them without payment of assessment for the years during which the land was left fallow. If, however, he elected to cultivate when the lands ordinarily should lie fallow he became liable to full assessment upon each survey number which he cultivated.

81. "Irrigational Settlements" have now been applied to all tálukas on the lapse of the term of original or revision settlements. One of the defects in original or revision settlements was the attempt, which entirely failed, to classify the land and water-supply, and assess the revenue proportionately. The classification of the land is now abandoned, and the assessment is based entirely on the mode of irrigation adopted, which varies in different tálukas and in different groups of villages. This has the merit of leaving it to the farmer to choose the best method of irrigation, season by season, according to the height of the river and the water-supply available. Under this system also the occupants are liable for the full assessment on each survey number when cultivated, but the size of the numbers has been reduced so as to render it possible

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for each number to be cultivated with one pair of bullocks. The occupants are also permitted to retain their rights over all their lands when lying fallow; but, to prevent abuse of the privilege, an assessment is charged at least once in five years. Practically, assessment is now levied on cultivation only, to the great benefit of the zamindárs and of the revenue. The full rates are high, but in cases of calamities such as locusts or floods, remissions are liberally given.

There are 48 tálukas at present under "irrigational settlements." In the Desert of Thar and Párkar (4 tálukas), and in the extensive hilly district adjoining Baluchistan, which is treated as 1 táluka, special arrangements exist for levying a very light assessment, no fixed settlement having been made.

82. There are few tenant rights in existence in Sind. The smaller zamindárs cultivate for themselves and the larger through yearly tenants, who almost always pay the superior a proportion of the crop, not cash, for the privilege of cultivating, the zamindár being responsible for the assessment. The share paid varies from ¼ to ½, according to the difficulty and expense of cultivating.

83. In Upper Sind, in the Rohri Sub-Division on the left bank of the river, a species of tenancy exist which requires special notice. This is locally termed "maurusi haripan," that is "hereditary tenancy or ploughmanship." It is somewhat similar to the *aforamento* prevailing in parts of Portugal and the Beklemreght in the Province of Groningen, described by M. de Lavaleye, in his article on the Land system of Belgium and Holland in the first volume of the Cobden Club Essays. The hereditary tenant pays a quit-rent under the names "lapo," "zamindári," "malkano," "tobro" or "deh kharch" to the proprietor. This quit-rent differs in different villages and even on different crops grown, but seldom exceeds 6 or 8 annas per acre and cannot be enhanced. The settlement of the Government demand is made directly with the tenant, and he is, in the land registers, entered as an occupant, the amount of quit-rent payable to the proprietor being also recorded. The right of occupancy is transferable, and in short, is as complete and secure as possible. Up till 1894 the original zamindár was not considered entitled to any assistance under the Land Revenue Code in the recovery of the "lapo" except through the Civil Courts, but in November of that year Government announced that they had no objection to such assistance being given in making the recovery from persons whose liability to pay it had been recorded in the Settlement Registers or established by decree or whose title was directly derived from such persons.

Hereditary tenancy.

84. Besides the "maurusi haris" there exist what are styled "2nd class haris." These are the real tenants of the zamindár, to whom they pay "lapo" and also a proportion in accordance with the custom of the country, of the crop as rent, and as long as they do so they cannot be ousted from their tenancies. In these cases the zamindár pays the assessment to Government.

85. The zamindári system referred to in the last two paragraphs is supposed to have originated in the following manner:—

Under the former Native rule certain individuals were granted the privilege of collecting certain fees on the revenue accruing from the lands of a tract of country, in consideration of their using their influence in bringing it under cultivation and collecting the revenue on the same. They attracted cultivators, probably advanced them money on account of the expenses of cultivation, afforded them the protection necessary in the then unsettled state of the country, and aided in the collection of the revenue; and the "lapo" was the consideration they received in payment of their services; the "deh kharch" (or village expenses) was probably an extra cess which they levied from their cultivators to meet the cost of entertaining Government officials, guests, &c. &c., and the "malkáno" and "zamindári" were other names for the above or similar benevolences. They all, however, now have one common meaning, *viz.*, a charge on cultivation, payable sometimes in kind, sometimes in cash, which the zamindár is, by custom, entitled to receive from the cultivators. The maurusi haris are probably the representatives of the cultivators originally introduced by the zamindárs into the deh; and the 2nd class "haris" the descendants of those who cultivated the zamindárs' private lands as yearly tenants, but who, from long enjoyment of their tenancies, have at last obtained from the zamindár the privilege of holding them permanently on payment of the battai (or share-in-kind) rate customary in the district.

86. Till about twenty years ago the zamindárs of Rohri claimed the right of *lapo* on all waste lands brought under cultivation in settled districts, but under a decision of the Judge of Shikárpur, it has been ruled that this right does not exist, and that they are entitled to it only from lands which were under cultivation at the time of introduction of the survey settlement.

87. The very large estates which formerly prevailed in this Province, the property of Muhammadan zamindárs, were in danger of gradually being broken up owing to the combination of many untoward circumstances, partly to their not understanding the original settlements and being forced to pay on all the holdings that they claimed as their own, whether cultivated or not, partly to unthriftiness, coupled with the hardness of the law for the recovery of debt and interest. Improved settlements and irrigation, the growth of intelligence and two Incumbered Estates Acts, (1) Act XIV of 1876 as amended by Act XX of 1881, which saved many large holdings and (2) Act XX of 1896, which is in full operation at the present moment have stayed

CHARACTER OF LAND TENURES, &c.

or retarded the evil. The introduction in March 1901 of Chapter III and some sections of the Dakhan Agriculturists' Relief Act is also calculated to result in great benefit to such of the landed proprietors as have not received or cannot receive protection under the Incumbered Estate Act. In former years Hindu zamindárs were rare in Sind, now they are to be found in thousands, partly owing to their having foreclosed mortgaged estates and partly because they find it a profitable investment of capital. Fresh grants of land to the improvident classes are, however, (since the passing of the Bombay Land Revenue Code Amendment Act), now for the most part made on the condition that they shall not in any way transfer the land except with the permission of the Collector. In the extensive tract commanded by the Jamrao Canal in the south-east of Sind the restricted tenure has been in force in the case of new grants since 1900 under the authority of a special enactment (Bombay Act III of 1899), the provisions of which have been extended to the large areas of waste land made available for cultivation in consequence of the extensive improvements carried out to the Dád, Nasrat and Naulákhi Canals in the Hyderabad District and the Hiralwáh in the Thar and Párkar District.

Rent-free Tenures.

88. The rent-free or partially rent-free tenures comprise jágirs, charitable grants (khairats) and garden grants. Jágirs are ranged under four classes, determined by the period at which the original alienation was made. Thus, the first class comprises alienations granted prior to the accession of the Tálpur Dynasty, A.D. 1783; the second comprises alienations granted in the earlier years, and the third and fourth, those granted in the middle and concluding period respectively of that dynasty. Jágirs of the 1st class are permanently alienated, those of the 2nd class are alienated subject to partial resumption and in certain cases to a payment in lieu thereof on succession, and those of the 3rd and 4th classes eventually lapse wholly to Government. Besides these there are lands permanently alienated to what are known as the four Great Tálpur Families. In these, succession has been regulated on principles similar to those laid down for second class jágirs, but in settling the claims of the four families, fixed rules were departed from in individual cases with a view to a more equitable and liberal treatment of chiefs whose claims called for special consideration.

Frontier Grants.

89. A distinct class of permanent alienation is found in the neighbourhood of Shikárpur, namely what are termed "Patadári grants." These are said to have been originally grants under leases (pata) of reduced assessment, made by the Afghán Government to Pathán settlers in North Sind. However this may be, they since acquired the form of assignment of a fixed proportion of revenue on certain lands, and as such they have been recognised and confirmed by our Government. The revenue alienated under this head amounts to Rs. 51,760 (1900-1901).

Charitable Grants.

90. The khairats or charitable grants, principally to Sayads, involve the alienation of a revenue of Rs. 6,29,117 (1900-1901). These also are permanent alienations, having been so recognised by the British on the ground of length of enjoyment. The large increase appearing on a comparison of the figures now given with that quoted on the last occasion is not due to any fresh grants, but to the inclusion of an extensive area belonging to a khairat grant in the Rohri Division, which had previously been omitted.

It should be stated that the succession to all hereditary jágirs in the Province is limited by express direction of the Supreme Government to "lineal heirs male," and that these lands are subject to a local cess for roads and schools of 5 per cent., calculated on the assessable value of the jágirs, and also to a water-cess for water taken from Government canals.

Financial results.

91. Besides these ordinary alienations there are large tracts of land in the Upper Sind Frontier District, granted rent-free to Baluch chiefs and their tribesmen. Some of these grants are in perpetuity, others for life, but all subject to good behaviour and loyalty, also to the payment of hakabo (water-rate) or any other local cess legally imposed on them. The area thus granted amounts to 26,100 acres, in round figures.

92. The minor alienations are of three kinds—

(1) Garden grants.

(2) Huri grants.

(3) Seri or village service grants.

Garden Grants.

93. Under both Afghán and Baluch rule in Sind much liberality was shown in the remission of revenue on land brought under garden cultivation. Garden grants are found scattered all over the province. They are divided into two classes—

(1) Wholly rent-free.

(2) Paying reduced assessment subject to certain stipulations. These lands are transferable, and being valuable property, are frequently sold and mortgaged. The extent of land thus alienated is 2,238 acres.

Huri Grants.

94. Owing to the treeless character of the country throughout the greater part of Sind, Mr. Frere, Commissioner in Sind, in 1858, in exercise of the authority then vested in the Commissioner, sanctioned the grant of lands free of rent for the purpose of growing trees. This concession, which has since been continued, is not really of the nature of a land alienation; only the rent due on the land is foregone so long as they are used for the purpose for which they are granted. If any land so granted is cultivated with crops, full assessment is levied. These grants are transferable, the transferee being bound by the conditions of the grant. The area thus granted is only about 3,850 acres.

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Seri Grants.

95. The Seri grant is generally made for the promotion of cultivation and for service in the prevention and detection of crime, in the collection of Government demands, &c. These grants are personal and for one life only, though continuable to successor. The area granted rent-free is 10,017 acres.

ALIENATION SETTLEMENT DEPARTMENT.

Alienation Department.

96. A regular and systematic enquiry into the validity of titles to alienated holdings in this Presidency was first suggested in 1851 by the discovery of unauthorized and fraudulent alienations during the operations of the revenue survey in the Southern Maráthá Country. An enquiry of this nature was tentatively commenced in 1843 in one or two Collectorates of the Southern Marátha Country, and was afterwards developed into an organized investigation which, under the title of Inám Commission or the Alienation Department, was extended to the whole of the Presidency. After some years' experience, however, the operations of this department were found, in consequence of the detailed scrutinies instituted, to be inconveniently slow. It was accordingly resolved to give such persons as claimed an exemption from the payment of Government land revenue the option of avoiding a scrutiny into their title by the payment of quit-rent. With this object Acts II and VII of 1863, known as the Summary Settlement Acts, were passed.

Patadári Tenure.

97. The Alienation Department was closed in 1876-77, the original alienation work still remaining being transferred to Collectors. The results, up to 1876-77, of the operations of this Department and of the summary settlements which followed, are given below :—

I.—Annual revenue alienated at the commencement of the alienation enquiry :—

	Rs.
Land	94,36,473
Cash	36,26,220
Total ...	1,30,62,693

II.—Annual revenue recovered to the State immediately and prospectively :—

	Rs.
Land	37,99,357
Cash	13,58,216
Total ...	51,57,573

III.—Annual revenue confirmed to alienees :—

	Land.	Cash.	Total.
	Rs.	Rs.	Rs.
On political tenure...	3,56,025	3,15,119	6,71,144
„ service tenure	17,89,003	15,18,044	33,07,047
„ religious tenure...	3,96,582	2,14,979	6,11,561
„ personal tenure	30,95,506	2,19,862	33,15,368
Total ...	56,37,116	22,68,004	79,05,120

IV.—The arrears of revenue standing to the debit of Government, but decided to be not payable to claimants, and carried to the credit of Government up to 1876-1877, amounted to Rs. 23,58,689.

V.—The total expenditure of the Alienation Department up to 1876-1877 was Rs. 25,79,453.

The above information is for all the districts in the Presidency inclusive of the Panch Mahals, which was until lately a non-regulation district, and in which the alienation enquiry commenced in 1866-1867 but was not completed till 1886-1887. The results of the enquiry in this district from 1876-1877 up to its completion are shown below.

I.—Annual revenue alienated at the commencement of the alienation enquiry :—

	Rs.
Land	98,721
Cash	22,930
Total ...	1,21,651

II.—Annual revenue recovered to the State immediately and prospectively :—

	Rs.
Land	27,879
Cash	6,707
Total ...	34,586

III.—Annual revenue confirmed to alienees:—

	Land.	Cash.	Total.
	Rs.	Rs.	Rs.
On political tenure	1,462	120	1,582
„ service tenure	44,270	10,101	54,371
„ religious tenure...	13,127	7,148	20,275
„ personal tenure	62,989	663	63,652
Total ...	1,21,848	18,032	1,39,880

IV.—The arrears of revenue standing to the debit of Government, but decided to be not payable to claimants, and carried to the credit of Government, amounted to Rs. 209.

V.—The total expenditure of the Alienation enquiry up to 1886-1887 was Rs. 53,578.

[*Note.*—The figures of population in this chapter are from the census of 1901: the land revenue figures are the revenue demand of 1901.]

The civil divisions of British territory include an area of 122·984 square miles with a population of 18,515,587. The area comprises 24 districts, excluding the town and island of Bombay, and is divided into four Commissionerships. The gross revenue amounted to Rs. 7,50,35,867.

[TOWN AND ISLAND OF BOMBAY.

1. The population of the town and island of Bombay is 776,006, or 34,005 persons to the square mile, the area being 22 square miles. The decrease of 50,758 since 1891 is due to the heavy plague mortality during the last six years and to the removal of a considerable number of people from the island to the mainland. Of the total population 508,508 are Hindus, 155,747 Mussalmáns, 46,231 Párs, 45,176 Christians, 20,244 Buddhists and Jains and of other religions. Of this number 131,796 persons are employed in the cotton industry. Population.

2. The revenue of Bombay Town and Island is collected under a special Act (Bombay Act II of 1876, modified by Act III of 1900). The land revenue amounted to Rs. 3,01,024 and the excise revenue, including tree-tax, to Rs. 11,49,828. The municipal revenue amounted to Rs. 77,66,729. Revenue.

3. The administration of the Land Revenue, Excise, Customs, Opium and Stamp Departments is vested in the Collector assisted by two covenanted civilians, one of whom is also Chief Inspector of Factories. The Municipal Corporation consists of 72 members, of whom 36 are elected by the rate-payers, 16 by Government, and the rest by the Chamber of Commerce, the University and the Justices of the Peace.] Administration.

NORTHERN DIVISION.

The Northern Division comprises the districts of Ahmedábád, Kaira, the Panch Maháls, Broach, Surat and Thána. It has an area of 13,710 square miles. It yields a gross revenue of Rs. 1,27,83,584, and has a population of 3,513,532 souls.

1.—AHMEDA'BA'D.

1. The population, 795,967, or 161 per square mile, has decreased as compared with that shown in the Census of 1891, 921,712, owing to famine and plague. About 10 per cent. of the population are Mahomedans, the rest being Hindus, except a very few Pársis, Christians and others. Among Hindus, the merchant or Vánia class is the most influential. The Kunbis are an important and valuable class and form the peasantry of the district. The Rajput tálukdárs live on their rents and lead a life of idleness. Rajput husbandmen are indolent and not so skilled as the Kunbis. The Kolis form a large portion of the population and were once a constant source of trouble. They have now become quiet and most of them are either cultivators or labourers. Population.

2. The land revenue amounted to Rs. 17,03,440: stamps, Rs. 2,40,859; excise, Rs. 1,54,365; and income-tax, Rs. 1,56,640. There are 11 municipalities which have a revenue of Rs. 6,01,558. The local fund revenue is Rs. 89,788. Revenue.

3. The district is divided into six tálukas, the administrative charge of which is distributed between two Assistant Collectors and a District Deputy Collector. The Sessions Judge, whose jurisdiction extends to the districts of Kaira and Panch Maháls, is assisted by a Joint Judge, an Assistant Judge, and five Subordinate Judges sitting at Ahmedábád, Viramgám, Dholka and Dhandhuka. The city of Ahmedábád forms a separate magisterial charge under the City Magistrate. The Police administration is in the hands of a Superintendent with an Assistant and three Inspectors. Administration.

4. More than half the land is held by large proprietors and Mehwás Chiefs. As the rivers flow in deep channels, there is not much direct river irrigation, but well irrigation is practised to a large extent. The Háthmati Canal and Khári Cut command, respectively, 28,840 and 11,500 acres. There are 17,749 wells, of which 14,385 are used for irrigation. One hundred and Agriculture.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Northern Division.*

seventy tanks have been excavated by famine labour. About 95 per cent. of the Government land is cultivated. Wheat, jowári and bájri form the staple crops, but pulses and oil-seeds are also grown. Native cotton occupies a large area and rice is cultivated to some extent.

Means of communication.

5. Gogha is connected with Bhávnagar by a good road. Made roads also run from Ahmedábád south towards Dholka for 23 miles, and a new road has been made connecting Ahmedábád at Bareja with the road known as the Naika-Bareja road and giving access beyond to the Kaira and Cambay Districts In the north, Modása, Harsol and Kapadvanj are connected by metalled roads. The railway from Bombay to Rajputána runs through the district and another line runs from Ahmedábád to Viramgám, where it turns south to Wadhwán and Bhávnagar, while another branch runs to the salt-works at Khárághoda. There is also a branch railway running from Viramgám to Mehsáná. The Ahmedábád-Parántij Railway was opened to traffic in 1896.

2.—KAIRA.

Population.

1. The population is 716,332, or 449 per square mile, showing a decrease of 155,462 from that of 1891, chiefly attributable to the famine and cholera of 1899-1900. The Lewa and Kadva Kunbis form the most important class of cultivators. The Rajput Thákors or landed proprietors still retain considerable estates, but are careless and improvident, and special measures have long since been taken to relieve them from insolvency. The Kolis, who formerly lived by plunder, have settled down as cultivators, and their ability has in parts greatly improved. The Musalmáns are chiefly employed in agriculture or in mechanical arts and manufactures, with the exception of the Bohrás, a rich class of Hindu converts to Islám, who live chiefly by trade, and have in many cases close connections with Bombay.

Revenue.

2. The land revenue was Rs. 21,31,697; stamps, Rs. 1,69,182; registration, Rs. 24,595; assessed taxes, Rs. 60,564; local fund, Rs. 1,89,263. The ten municipalities collected Rs. 13,61,711 between them.

Administration.

3. The district is divided into seven tálukas in the charge of an Assistant and a Deputy Collector. For judicial purposes the district is under the jurisdiction of the District Court of Ahmedábád. Five Subordinate Judges sit at Umreth, Kapadvanj, Borsad, Kaira and Nadiád, respectively. The District Superintendent of Police is assisted by three Inspectors.

Agriculture.

4. The chief grain crops are bájri, rice, jowári (used as fodder), tur, kodra and wheat. Oil-seeds and cotton are not grown to any great extent, but a large area is under tobacco, especially in Nadiád, A'nand and Borsad Tálukas. The district is one of the most fertile in the Presidency.

Means of communication.

5. There are 118 miles of actual metalled road under the District Board, and all the water-courses are bridged except the large rivers. New roads were opened by famine labour from Mehmadábád to Dákor, and from Borsad to Agas Railway station The whole of the district is connected with Ahmedábád City by metalled road. The main line of the B. B. & C. I. railway passes through the district, and a branch line from A'nand runs to the Panch Maháls and to Rutlám. In 1891 another branch line was opened from A'nand to Petlád in the Gáekwár's territory, and thence to Cambay town, thus bringing the district into close connection with the sea.

3.—PANCH MAHÁLS.

Population.

1. Of a population of 261,020, or 163 per square mile, the bulk is composed of Bhil and Koli cultivators. The Náikadás, probably the wildest tribe in the Presidency, are in strength in the forest country to the south and east of the Western Maháls. There is a considerable leaven of Rajputs in all positions from peasant to Tálukdár. The number of Kunbis is increasing but slowly. They compose 2·4 per cent. of the population and are confined almost altogether to the Western Maháls. The Musalmán Ghánchis, a manly and energetic race, whose principal occupation used to be that of carriers, have now become the most enterprising cultivators in the district and are spreading from their head-quarters at Godhra into distant villages. Trade is in the hands of the Baniás and Bohrás, the latter of whom monopolize the very considerable timber business.

Revenue.

2. The land revenue was Rs. 3,18,030. The realizations from stamps were Rs. 55,777, from excise Rs. 21,883 and from assessed taxes Rs. 15,115. The local fund revenue was Rs. 49,147 and Rs. 35,348 was collected by the two Municipalities of Godhra and Dohad.

Administration.

3. The three tálukas and two maháls into which the district is divided are in the charge of an Assistant and a Deputy Collector. The Sessions Court of Ahmedábád has jurisdiction in judicial matters. There are two Subordinate Judges at Dohad and Godhra. The Police administration is in the hands of a Superintendent assisted by three Inspectors. Forest administration is under a Deputy Conservator assisted by an assistant.

Agriculture.

4. Maize, the staple food of the district, is grown as the first monsoon crop, but bájri and rice are also largely cultivated though the latter is of an inferior quality. Sesamum is sown for the most part in partially cleared or new lands and there is always a considerable area under bávto, kodra and other inferior grains. The late crops are wheat and gram, and these generally follow as second crops. Tur and castor-oil are also grown, as well as a small quantity of sugarcane. In the more open tracts in the south the cultivation of cotton is spreading. The available waste land is now 21 per cent. of the cultivated area.

Means of communication.

5. The A'nand-Rutlám line passes through the district from west to east connecting Godhra with Dohad. A Chord line from Baroda to Godhra is under construction. There are

four main roads, one connecting Lunávada with Godhra, while another runs from the Railway at Sunth Road to the Sunth Border. The old road running parallel to the railway line from A'nand to Dohad is still maintained where it passes through this district, and a branch of it, metalled and bridged, connects Jhálod with the Railway at Limkheda in Bária. There is a bridged but unmetalled road from Godhra to Kálol and Hálol and thence across to the Jámbughoda frontier.

4.—Broach.

Population.

1. The population is 291,763, or 199 per square mile. The patidárs, also called Kunbis, who are the best Hindu cultivators, are an intelligent and respectable class, who appear to enjoy much prosperity, but do not increase in numbers. Among other Hindu cultivators are the Girássiás, who live on their rents, the Káchiás, who are skilful market gardeners, and the Kolis of the coast. Among Mahomedan cultivators, the Bohrás, who are numerous and thriving take the highest rank. They are adventurous enough to emigrate to South Africa and other colonies, and are also somewhat addicted to violent crime. Below these classes on the land is a stratum of Bhils and Taláviás who do village service and labour. The trading classes are chiefly Vániás and Pársis.

Revenue.

2. The revenue demand is Rs. 22,34,907: the stamp revenue was Rs. 1,07,882. Income-tax Rs. 45,073; and excise, Rs. 1,82,649. The local fund demand was Rs. 1,75,163.

Administration.

3. The five tálukas of the district are in the charge of two sub-divisional officers. There is an Assistant Judge with full powers assisted by five Subordinate Judges sitting at the head-quarters of each táluka. The policing is in the hands of a Superintendent assisted by an Inspector.

Agriculture.

4. The soil is chiefly black; but there are tracts of brown soil in Jambusar, A'mod, Anklesvar and other parts of the district. Both kinds are rich. The chief crops in the black soil are cotton, jowári, sesamum, tur, lang, wheat and rice: in the brown soil bájri, jowári and pulses. Tobacco is grown in the alluvial lands of the Nerbudda.

Means of communication.

5. External communication is effected by the B. B. & C. I. Railway, which passes through the Anklesvar and Broach Tálukas. Passengers from Káthiáwár can also reach the district by sea. For internal communication the district possesses seven roads, which in some degree deserve the name of made roads, and of which three are partly metalled. For the rest communication is by country tracks.

5.—Surat.

Population.

1. The population was 637,017, or 314 per square mile. The chief cultivating castes are the Anavla Bráhmans, Kunbis and Kolis. Rajputs, Vohrás and a few Pársis are also to be found amongst the Surat cultivators. The aboriginal races or Káliparaj are rather more than one-third of the whole Hindu population. The Dublás, their most numerous section, are distributed all over the district. The most important of the artisan classes are the Ghánchis, Golás, Khatris and Kumbhárs. The Vániás are the chief traders. The Mussalmáns form 8·5 per cent. of the total population of the district; and with the exception of the Vohrás they are in a far from flourishing state. The Pársis are found mostly in Surat; in a few villages there are colonies of cultivating Pársis.

Revenue.

2. The land revenue amounted to Rs. 23,30,408; stamps, Rs. 1,98,108; excise, Rs. 9,32,021; and income-tax, Rs. 90,214. The revenue from local funds was Rs. 2,45,919 and the four municipalities had a revenue of Rs. 5,22,195.

Administration.

3. The eight tálukas into which the district is divided are under the charge of three sub-divisional officers. The City of Surat forms a separate magisterial charge under the City Magistrate. The Sessions Judge, with whom is associated a Judge of the Small Cause Court, is assisted by four Subordinate Judges sitting at Olpád, Surat and Bulsár. The District Police Superintendent, assisted by two Inspectors, is in executive charge of the Police. Forest administration is under a Deputy Conservator assisted by an extra Assistant Conservator.

Agriculture.

4. The area under cultivation was 745,696 acres, the uncultivated area amounting to 5·9 per cent. only of the culturable waste. Jowári ranks as the principal crop with cotton and rice. Nágli and kodra are also sown chiefly in the south. About 10,000 acres are under irrigation, half of which is grown with sugarcane.

Means of communication.

5. There are 433 miles of road in the district by which the principal towns are connected with Surat and the railway. The only important bridges for cart-traffic in the district are those over the Tápti at Surat, and over the Tena creek near Olpád. The B. B. & C. I. Railway runs through the district parallel to the coast. The Tápti Valley Railway, 170 miles in length, which joins Surat to the G. I. P. system, was opened in 1898. The sea-borne trade from the ports has greatly fallen off of late years.

6.—Thána.

Population.

1. The population of the district is 811·433, or 227 to the square mile. The Chitpáwan or Konkanasth Bráhmans are the most numerous among the priestly class. The Káyastha Prabhus are mostly writers and accountants. The traders are chiefly Banias from Gujarát and Márwár, Bhátias, Pársis and Musalmáns. Kunbis and A'gris are the principal classes of cultivators proper. The so-called wild tribes of Thákurs, Wárlis and hill-Kolis also subsist

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mainly by cultivation. The Son-Kolis of the coast, a different and more civilised race, are fishermen. Amongst the many other castes of the coast-tálukas, the Bhandáries or hereditary toddy-drawers are perhaps the most noticeable, except the Native Christians of Sálsette and Bassein. There is a large population of Kátkaris or Káthodis, a tribe superior only to the Mahárs in the scale of castes and subsisting by labour on forest-fellings, roads and by minor forest produce.

Revenue.

2. The land revenue was Rs. 13,68,397, stamps Rs. 1,52,175, excise Rs. 11,10,225, assessed taxes Rs. 33,739, salt revenue Rs. 1,85,907, and forest receipts Rs. 2,92,084. The local fund revenue was Rs. 2,80,074 and that of the 7 municipalities Rs. 2,36,231.

Administration.

3. For administrative purposes the district is divided into 9 tálukas under two Assistant Collectors and a Deputy Collector. The Sessions Judge, whose jurisdiction also includes the District of Kolába, is assisted by an Assistant and seven Subordinate Judges. Forest administration is under the control of two Deputy Conservators assisted by two Assistants. The District Superintendent of Police with two Inspectors controls the policing of the district.

Agriculture.

4. The cultivation of rice is carried on extensively in embanked fields. Large areas have also been reclaimed from the sea by protective embankments. Inferior cereals, oil-seeds and pulses are grown on the uplands, and in the north of the district also tur, til and fibre hemp; gram or wal occasionally follows sweet rice as a "stolen crop." There is a great trade in hay with Bombay, and the gardens and orchards of the coast produce an important amount of vegetables and fruits, the most noticeable of which are the plaintains and mangoes.

Means of communication.

5. Both the main railway lines of Western India run through the district, the B. B. & C. I. northwards to Gujarát and Upper India, and the G. I. P. eastwards to Kalyán. In addition the district is well served by a number of metalled roads and also by navigable creeks.

CENTRAL DIVISION.

The Central Division comprises the districts of Ahmednagar, Khándesh, Násik, Poona, Sátára and Sholápur. It has an area of 37,192 square miles and a population of 5,944,447 souls. It yields a gross revenue of Rs. 1,57,50,663.

1.—AHMEDNAGAR.

Population.

1. The population is 937,395, with a density of 127 per square mile. The bulk consists of the Maratha caste. Next follow, in point of numerical importance, Mahárs, Musalmáns, Dhangars, Mális, Bráhmins, Vanjáris, Kolis, Mángs, Christians, Jains, Bhils, Pársis.

Revenue.

2. The land revenue demand was Rs. 16,61,000; excise realised Rs. 1,02,342; stamps Rs. 1,22,023; income-tax Rs. 45,450; registration Rs. 22,917; law and justice Rs. 13,879; forests Rs. 22,588; and local funds revenue Rs. 1,44,450. The five municipalities have a revenue of Rs. 1,37,511.

Administration.

3. The district is divided into 11 tálukas in the charge of two Assistant and two Deputy Collectors. The District Judge is assisted by two Subordinate Judges appointed under the Dakhan Agriculturists' Relief Act and six Subordinate Judges. The Police are in the charge of a District Superintendent assisted by two Inspectors. Forest administration is under a Deputy Conservator.

Agriculture.

4. Of the total cultivable area of 2,587,298 acres, 2,498,838 acres are under cultivation. The chief crops are jowári and bájri, but cotton is also extensively grown in the east and wheat in the north. There is a considerable amount of land under well irrigation.

Means of communication.

5. The already extensive provision of made roads has been increased by several useful additions carried out largely by famine labour. A branch of the G. I. P. Railway runs through the length of the district from North to South. Some cotton traffic has been diverted by the construction (outside the district) of the Nizám's Godávary Valley Railway from Manmád to Hyderabad.

2.—KHA'NDESH.

Population.

1. The population is 142,738, or 142 per square mile, of which the majority consist of Kunbis who are skilful cultivators. The Ahirs and the Bhils are very numerous, the latter amongst the Sátpura Hills and in the west. With the Mahárs they form the labouring class in nearly all the villages of Khándesh. Mussalmáns are also found, the descendants of the Mahomedan invaders and also of the Arab mercenaries. Maráthás came in with the conquest of the country by the Peshwas. Vanjáris have largely taken to cultivation since their lucrative carrying trade has been destroyed by the advent of the railway. A few Koli fishermen, shepherds and Dhangar are found all over the district. The trading classes consist chiefly of Ladsakka and Gujaráti Wánis and Mahomedans.

Revenue.

2. The land revenue was Rs. 41,31,454, stamp revenue Rs. 6,38,985, excise Rs. 3,97,688, income-tax Rs. 1,19,519, and forests Rs. 1,18,814.

Administration.

3. The seventeen tálukas into which the district is divided are distributed between three Assistants and two Deputy Collectors. There is a District Judge assisted by ten Subordinate Judges. The Superintendent of Police is assisted by two Assistants and four Inspectors. For Forest administration the district is divided into two Divisions, each under a Deputy Conservator assisted by an Assistant.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Central Division.*

4. The cultivated area was 3,284,503 acres, while 328,543 acres still remained uncultivated. The chief crops are bájri, jowári and wheat, kulith, gram, gingilly and linseed. A very large area is sown with cotton, chiefly of the Hinganghát and Dhárwár varieties. Agriculture.

5. The most important road is the Bombay-Agra Road which runs *vid* Málegaon, Dhulia and Shirpur through the district. The Great Indian Peninsula Railway runs for 82 miles through the south of the district from Nándgaon to Bhusával, where it divides one branch going to Jabalpur and the other to Nágpur. A branch from Jalgaon to Amalner, 35 miles long, was opened in 1900 and a branch from Chálisgaon to Dhulia, 35 miles in length, was opened in 1900. The Tápti Valley Railway from Surat to Amalner running for 94 miles through the central portion of the district from east to west was opened early in 1901. Means of Communication.

3.—NÁSIK.

1. The population is 816,504, of which Hindus number 761,471, Musalmáns 43,856, and Jains 7,643. The density per square mile is 140. Population.

2. The land revenue demand was Rs. 10,66,817, excise Rs. 1,22,143, stamps Rs. 2,27,433, and assessed taxes Rs. 57,575. The six municipalities have a revenue of Rs. 1,57,969. Revenue.

3. The twelve tálukas into which the district is divided are distributed between two Assistant Collectors and a Deputy Collector. The Judge is assisted by seven Subordinate Judges. Under the District Superintendent of Police is an Assistant with three Inspectors. The Divisional Forest Officer is assisted by an Assistant. Administration.

4. The area of cultivable land lying waste was 152,954 acres, representing 3·3 per cent. The area irrigated from wells and canals amounted to 55,502 acres. The chief crops are bájri, nágli, jowári, rice and gram, but there is also a large area under cotton. Agriculture.

5. The G. I. P. Railway enters the district at Igatpuri and runs through its entire length as far as Nándgaon. In 1899-1900 a new railway was opened from Manmád on the G. I. P. Railway running to Hyderábád. It only traverses a few miles of the Chándor Táluka and the north of the Yeola Táluka. The district is well served by the Bombay, Agra, Násik, Poona, Ahmednagar, Málegaon and Khándesh Frontier roads. Means of Communication.

4.—POONA.

1. The population is 995,330 (165 per square mile), of whom 920,885 were Hindus, 45,790 Musalmáns, 14,484 Christians and 10,703 Jains. Population.

2. The land revenue amounted to Rs. 13,86,446; local funds to Rs. 2,10,876; stamps to Rs. 2,89,608; income-tax to Rs. 99,134; exciae to Rs. 6,50,600; forest to Rs. 98,956. The revenue of the sixty-two municipalities was Rs. 4,62,264. Revenue.

3. The eight tálukas of the district are distributed between three Assistant Collectors. The District Judge is assisted by a Special Judge under the Dakhan Agriculturists' Relief Act, a Small Cause Court Judge and six Subordinate Judges. The town of Poona forms a separate magisterial charge under the City Magistrate. The District Superintendent of Police is assisted by an Assistant and four Inspectors. Forest administration is under a Deputy Conservator. Administration.

4. The cultivable area of the district is 2,555,114 acres, of which 2,489,866 were actually under cultivation. Jowári and bájri are the principal crops, but wheat and sugar-cane are also extensively grown. There is a considerable area under canal irrigation, the most important distributaries being the Mutha and the Nira Canals. Agriculture.

5. The district is served by the G. I. P. and the Southern Maráthá Railways, while a number of metalled roads place the district in communication with the Násik, Ahmednagar, Sholápur, Belgaum, Sátára and Kolába Districts. Means of Communication.

5.—SÁTÁRA.

1. The population of the district is 1,146,559 (238 to the square mile), of which Hindus form 94 per cent., Mussalmáns 3 per cent. and Jains 1 per cent. Of the Hindu population 53·8 are Maráthás or Kunbis, 8·5 per cent. are Mahárs, 4·2 Bráhmans and 4·18 per cent. Dhangars. Population.

2. The land revenue of the district is Rs. 28,18,531. The revenue under other principal heads was: stamps, Rs. 1,30,251; excise, Rs. 96,989; income-tax, Rs. 42,816; forest, Rs. 45,408; and local funds, Rs. 2,31,019. The twelve municipalities have a revenue of Rs. 1,26,683. Revenue.

3. There are eleven tálukas in the charge of two Assistant Collectors and a Deputy Collector. The Judge is assisted by an Assistant Judge, a Subordinate Judge under the Dakhan Agriculturists' Relief Act and nine Subordinate Judges. The District Superintendent of Police is assisted by two Inspectors. Forest administration is under a Deputy Conservator with an Assistant under him. Administration.

4. Agriculture supports about three-quarters of the entire population. In the west náchni and vari are the chief crops; but rice is also grown in the valleys, specially along the Koyna river. In the remainder of the district, jowári and bájri are the staple crops. In the Krishna Agriculture.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Southern Division.*

valley sugarcane and ground-nut are extensively cultivated. At Mahábaleshvar and Panchgani potatoes are grown. The Krishna, Chikhli and Revadi canals, the Yerla and Mán river works, and the tanks at Nehr, Mayani and Pingli are the principal irrigation works. Of the total cultivable land in the district only 0·8 per cent. now remains unoccupied.

Means of Communication.

5. The Southern Maráthá Railway traverses the district from north to south, running nearly through its centre. The district is exceptionally well provided with roads, including the trunk road from Poona to Bangalore (which traverses it from north to south near the railway), and numerous feeder roads to the railway.

6.—SHOLA'PUR.

Population.

1. Of the total population of 720,977, nearly eleven-twelfths are Hindus (655,691); Mussalmáns rank next in importance with 54,510, and Jains with 8,453. Agriculturists number 148,219. The density per square mile is 143.

Agriculture.

2. Of the total cultivable area (2,085,920 acres) all but 19,304 acres were under cultivation at the end of the year 1901-1902. The irrigated area fell from 130,093 acres in 1898 to 87,603 in 1901. Large irrigation projects have been undertaken at Pathri, Budhihal, Bhambhurdi, Wadshivne, Hotgi and Manji. The number of wells which in 1891-1892 was 16,432 increased to 21,234 at the end of 1901.

Revenue.

3. The land revenue demand for 1901-1902 was Rs. 11,55,760. Excise collections amounted to Rs. 1,50,488; income-tax receipts realised Rs. 59,444; the forest revenue was Rs. 15,938; stamp revenue, Rs. 88,879. The income of the municipalities was Rs. 3,22,270.

Administration.

4. The seven tálukas of the district fall into two sub-divisions under an Assistant and a Deputy Collector. The District Judge is assisted by six Subordinate Judges. The Police are under the charge of a District Superintendent who is assisted by one Inspector. Forest administration is under an Extra Assistant Conservator.

Means of Communication.

5. The district is intersected by the G. I. P. Railway, a branch of the Southern Marátha Railway, and a network of metalled roads. In the last decade the Bársi Light Railway has been completed which links Bársi Road station on the G. I. P. Railway with Bársi town.

SOUTHERN DIVISION.

The Southern Division contains a total area of 24,989 square miles and a population of 5,070,692. It yields a gross revenue of Rs. 1,29,53,752 and comprises the districts of Belgaum, Dhárwár, Bijápur, Kánara, Ratnágiri and Kolába. The district of Bijápur was known as Kaládgi until the 1st April 1885, when the head-quarters were removed from Kaládgi to Bijápur.

1.—BELGAUM.

Population.

1. The population is 994,209 with a density of 214 persons to the square mile. Of these 1,527 are Europeans, 187 East Indians and other mixed classes, 5,366 Native Christians, 856,560 Hindus, 78,389 Mahomedans, 106 Pársis, 51,833 Buddhists and Jains, 2 Jews, 3 Sikhs.

Revenue.

2. The land revenue amounts to Rs. 14,66,439 and local funds to Rs. 91,652. The six municipalities in the district have an income of Rs. 96,162.

Administration.

3. The charge of the seven tálukas and three maháls into which the district is divided is distributed between one Assistant and two District Deputy Collectors. The District Judge is assisted by four Subordinate Judges sitting at Belgaum, Chikodi, Saundatti and Athni. There is a Deputy Conservator of Forests who is assisted by an Assistant. The Police administration is in the charge of the District Superintendent and his two Inspectors.

Agriculture.

4. Of the total area of 2,849,301 acres, 2,185,188 acres are returned as cultivable, of which 1,622,308 are actually under cultivation.

Means of Communication.

5. The West Dakhan section of the Southern Marátha Railway crossing the district from north to south was opened by the Southern Marátha Railway Company in the year 1887. The line passes through the Khánápur, Belgaum, Chikodi, Gokák and Athni tálukas. A considerable traffic which used to pass by the Poona-Harihar road is now carried by the railway. At Londa, a station in the Khánápur Táluka, the West Dakhan section connects with the Bellary-Mormagao line and in the spring a large amount of produce finds its way to the sea by this route.

2.—DHA'RWA'R.

Area. Population.

1. The total area of the district is 2,945,163 acres or 4,601·8 square miles. The total population is 1,113,298, or 220·2 per square mile, of which 560,947 souls are males and 552,351 are females. The most influential classes of the community are Bráhmins and Lingáyats. The language of the district is Kánarese, but Maráthi is also spoken.

Revenue.

2. The gross revenue of the district is Rs. 0,41,373. The details are:—land revenue, Rs. 25,05,490; local funds, Rs. 1,56,593; stamps, Rs. 2,07,802; excise, Rs. 3,55,404; assessed taxes, Rs. 74,187; forests, Rs. 83,105.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Southern Division.*

3. The eleven tálukas into which the district is divided are in the administrative charge of two Assistant Collectors and one District Deputy Collector. The District Judge is assisted by six Subordinate Judges sitting at Dhárwár, Gadag, Hubli and Háveri. In addition to the District Police Superintendent and his two Assistants there is a Railway Police Superintendent who is in charge of the police of the Southern Marátha line. Forest administration is under an Assistant Conservator. Administration.

4. Out of a total area of 2,872,254 acres 2,401,110 acres are cultivable. The principal products of the district are cotton, indigenous and exotic, jowári, jagri, chilly and oils. At Hubli and Gadag, which are the principal trade centres of the district, there are 35 ginning, pressing, spinning and weaving factories. Agriculture.

5. The Southern Maráthá Railway runs through the district in two branches. All the places of importance in the district are connected by good roads, most of them being metalled. Means of Communication.

3.—BIJA'PUR.

1. The area of the district is 5,669 square miles, and the population 735,435 against 796,339 in 1891. The decrease is attributed not so much to excess of deaths over births as to emigration due to famine at the time of the census. At least 60,000 persons are calculated to have left their homes during the four months preceding the census. The population is mainly dependent on agriculture; only about 20 per cent. are engaged in crafts and industries. These latter are chiefly weavers and are distributed all over the district, but it is only in the south that silk clothes of fine quality are produced. Elsewhere cotton cloths and woollen blankets are made. The density is 130 per square mile. Population.

2. The land revenue is Rs. 6,30,548; stamps Rs. 99,163; excise Rs. 1,18,301; income-tax Rs. 28,062; forests Rs. 19,800; registration Rs. 13,492; and law and justice Rs. 5,305. The local fund cess amounted to Rs. 39,409. The four municipalities have an income of Rs. 77,679. In ordinary years the income from land revenue is Rs. 14,46,000 and local fund cess Rs. 1,10,000. Since 1896-97 the district has been passing through a series of unfavourable season, and even well-to-do rayats have been reduced to a state of poverty. Suspensions have been allowed from year to year and lately remissions to the extent of Rs. 14,77,182 were granted. Revenue.

3. The district is divided into eight tálukas, the administrative charge of which is distributed between two Assistant Collectors and a Deputy Collector. An Assistant Judge with full powers sits at Bijápur, assisted by three Subordinate Judges at Bijápur, Bágalkot and Muddebihál. The Police of the district is under the District Superintendent with two Inspectors. Administration.

4. Of the total area (exclusive of alienated villages for which statistics are not available) 89 per cent. is arable and 98 per cent. of the arable land is occupied for cultivation. Jowári is the staple crop and the chief food of the people. Bájri and wheat are also grown to a great extent as also cotton in the black soil. Irrigation tanks are not numerous, the area protected by irrigation being only 20,000 acres. The rainfall is irregular both in amount and distribution. The whole of the district is, therefore, liable to famine, except some alluvial lands, about 75,000 acres in all, along the banks of the Bhima, Don, Krishna, Ghatprabha and Malprabha, where a slight rainfall is sufficient to enable an agriculturist to undertake cultivation. Agriculture.

5. The Southern Marátha Railway was opened in 1885 and runs through 5 out of the 8 tálukas of the district. It connects Bijápur with the more prosperous districts and trading centres in the north and south. Since the opening of the Railway a network of feeder roads connecting the principal villages and towns with the railway has been constructed. There are also through roads coming from and passing out to other districts, such as the Sholápur-Belláry, Sholápur-Hubli road from Mira Bay to Sindgi *vid* Amba Ghát, Sátára-Bijápur and Belgaum-Ilkal Roads. Means of Communication.

4.—KA'NARA.

1. The population is 454,490 or 115·2 to the square mile. Of this population, 407,420 are Hindus, 29,302 Mussalmáns, 16,199 Christians, while all other classes together amount to 1,569. The language of the district is Kánarese, but in the coast tálukas and the Supa petha Konkani and Maráthi are also spoken. Population.

2. The total revenue of the district in 1901-1902 was Rs. 16,74,502, of which land revenue yielded Rs. 10,13,749, stamps Rs. 93,133, excise Rs. 1,76,015, assessed taxes Rs. 16,337, and forests Rs. 3,53,576. The forest figures depend mainly on the value of timber sold from the depôts and are thus liable to great fluctuations. Revenue.

3. The district is divided for administrative purposes into 8 tálukas and 3 maháls. There is one Assistant and one Deputy Collector, each in charge of a sub-division, roughly half the district, and a Huzúr Deputy Collector at head-quarters. There is a Sessions Judge and four Subordinate Judges sitting at Kárwár, Kumta, Honáwar and Sirsi, respectively. The Police administration is in the hands of a Superintendent with two Inspectors under him. The district being largely covered with forest, there are three Divisional Forest Officers. Administration.

4. The area of the district in the hands of cultivators was in 1901-1902 337,829 acres out of a total area of 2,524,919 acres. The large amount of rice and garden cultivation together with the wide stretches of jungle and the heavy rainfall render the district malarious and the Agriculture.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Southern Division.*

people are consequently not robust. Labour in the spice gardens is largely imported from South Kánara. The principal agricultural products of the district are betelnuts, cardamoms, pepper, plantains, cocoanuts, rice and rági.

Means of Communication.

5. The Southern Marátha Railway enters the north-west angle of the district, but is of little use as a feeder as the population there is very sparse. The district is traversed from north to south by two main roads, one above the Ghâts and one along the coast, and by four main roads at right angles to them which climb the Ghâts and link up the principal coast towns with Belgaum, Dhárwár and Mysore territory. These roads are generally good and carry most of the traffic. There is steamer communication into Bombay during the fair season only. Kumta is the principal port.

5.—RATNA'GIRI.

Population.

1. Of the entire population of 1,167,927 (or 293 persons to a square mile) 1,077,745 or 92 per cent. are Hindus and 90,182 Mahomedans and others.

Revenue.

2. The total revenue is Rs. 19,01,806, of which Rs. 9,14,026 were land revenue; of the rest, stamps yielded Rs. 1,58,586; excise, Rs. 2,25,689; income-tax, Rs. 19,629; registration, Rs. 17,291; law and justice, Rs. 7,601; forests, Rs. 2,566; salt and customs, Rs. 2,73,613; Public Works Department, Rs. 50,070, and other minor sources Rs. 10,023. The local funds amounted to Rs. 57,127. There are five municipalities in this district with a gross revenue of Rs. 52,022.

Administration.

3. The district is divided into 9 tálukas, under the charge of an Assistant and two District Deputy Collectors. The District Judge, with whom is associated an Assistant Judge, sits at Ratnágiri, and is assisted by ten Subordinate Judges, sitting at the head-quarters of the tálukas. The Police Administration is in the charge of the District Superintendent who has two Inspectors under him.

Agriculture.

4. Agriculture is the chief industry of the district, but in a few towns and villages there are made sáris and coarse blankets. In Viziádurg, Devgad and a few of the neighbouring villages ornamental work in bison horn is made, while Ratnágiri itself is celebrated for the inlaid furniture made at its School of Industry. There are two oil-presses, one at Chiplún and the other at Málvan, which appear to work profitably. The principal agricultural products are rice, nágli, wari, harik, cocoanuts and betelnuts. Of the total area of 2,554,558 acres, 1,815,875, or 71 per cent. of the whole, are cultivable.

Means of Communication.

5. The main district road runs north and south, passing through the chief inland trade centres and crossing the different rivers above the limit of navigation. From it radiate cart roads which gather to the four chief openings across the Sahyádris. In addition there is a bullock-track along the coast. During the fair season the district is served by the ferry boats of the Bombay Steam Navigation Company, while in the monsoon communication is maintained *vid* the Amba Ghát.

6.—KOLA'BA.

Population.

1. The population is 605,566 souls (284 to the square mile), of whom 570,661 are Hindus and 29,339 Mussalmáns.

Revenue.

2. The revenue under all heads in 1901-1902 was Rs. 22,33,318:—land revenue Rs. 12,77,263; rates Rs. 89,368; ábkári revenue, including opium, Rs. 4,68,693; stamps Rs. 1,01,535; forest revenue Rs. 75,583. The six municipalities in the district have an income of Rs. 68,391.

Administration.

3. The district consists of seven tálukas and three maháls under the administrative charge of an Assistant and a District Deputy Collector. There is no Sessions Judge, the jurisdiction of the Sessions Court at Thána extending over the district of Kolába. In the monsoon the District Magistrate is ordinarily invested with powers of a Sessions Judge. There are in addition five Subordinate Judges, two sitting at Mahád, one at Pen, Panvel and Alibág. The Police of the district is under the control of a District Superintendent assisted by an Inspector.

Agriculture.

4. Of the total area (excluding inám lands which comprise 60,860 acres) of 1,303,127 acres, 691,543 acres are cultivated, 36,345 acres (including 32,588 acres of salt marsh land) are cultivable though not actually under cultivation, and 575,239 acres are uncultivable unassessed waste.

Means of Communication.

5. The district is served by the Great Indian Peninsula Railway which passes through the Karjat Táluka and the Khálápur Mahál. There are three main roads over the Bhor, the FitzGerald and the Virandah Ghâts which connect the district with the interior and are available for traffic all the year round. In addition to a steamer ferry between Bombay and Ulwa, there is direct steamer communication for passengers and freight between Bombay and the coast ports.

SIND.

The province of Sind lies between 23° and 28° 40′ north latitude and 66° 50′ and 71° east longitude. It contains an area of 47,066 square miles with a population in 1901 of 3,210,913

and yields a revenue of Rs. 1,41,62,176. It comprises the districts of Karáchi, Hyderábád, Sukkur, Lárkhána, Thar and Párkar and the Upper Sind Frontier.

1.—KARÁCHI.

Population.

1. The population is 446,513, of whom 93,085 are Hindus, 344,518 Muhammadans, 6,413 Christians, 381 Jews and 2,116 of miscellaneous denominations. The area being 11,971·08 square miles, the density of the population is 35 to the square mile. The chief Muhammadan sects are the Sayads, Baluchis, Karmatis, Samans, Patháns, Bráhuis, with numerous others, such as Memons, Shidis, Gados, Máchis and Mekránis. The Hindu castes comprise Bráhmins (such as the Pokarno, Sarsudh and Nagar), Kshatrias, Waishias (among whom is the great Lohána family), and a large number of Panjábis, Gujarátis, Kachis, Maráthás and others.

Revenue.

2. The land revenue demand in 1901-1902 was Rs. 5,38,209, stamps Rs. 1,84,410, excise Rs. 6,68,639, forest produce Rs. 73,368 and income-tax Rs. 1,30,815. The local funds revenue was Rs. 33,638, while the five municipalities raised Rs. 21,05,007.

Administration.

3. The district is divided into nine tálukas and 3 maháls, of which the administrative charge is distributed between two Assistant Collectors and a Deputy Collector. The town of Karáchi forms a separate charge under the City Deputy Collector. The District Judge is assisted by a Joint Judge, a Judge of the Small Cause Court and two Subordinate Judges sitting at Sehwan and Kotri Mirpur. The District Superintendent of Police is assisted by an Assistant Superintendent. The Forest administration is under a Divisional Forest Officer assisted by an Assistant Conservator.

Agriculture.

4. According to the census of 1901, the population contained 205,523 agriculturists and 240,990 non-agriculturists. In the Karáchi Táluka cultivation exists only in a few isolated spots, and depends upon wells, springs or natural rainfall. The chief crops are jowári, bájri, barley and sugar-cane, grown chiefly on the Malir plain, 12 miles distant from Karáchi and easily accessible by rail. In the delta divisions of Tatta and Sháhbandar, where numerous canals carry the waters of the Indus through the alluvial flats, rice forms the staple crop, but wheat, sugar-cane, millets, cotton and tobacco are also grown. In the barren hills of Kohistan, agriculture is but little practised, except on hill springs or when heavy rain falls, the nomad population devoting itself almost entirely to grazing cattle in the southern plains, where an abundance of forage springs up spontaneously after every fall of rain. The harvest seasons recognised in the district are three, *viz.*, kharif, sown in May and June and reaped in October, November and December; rabi, sown in November and December and reaped in March and April; and adhava, sown in January to March and reaped in March to July. The Baghar Canal in the Tatta Division and the Pinyari and Satah Canals in the Sháhbandar Division, as well as numerous other smaller canals and distributaries, supply the means of irrigation.

Means of Communication.

5. Besides being the port of call of various steamer lines, Karáchi is the focus of two important railway systems and of a number of trade routes from Afghánistán and Central Asia. The North-Western Railway links the district with the Punjáb and part of the United Provinces and Agra, while the construction of the Hyderábád-Umarkot Railway places it in direct railway communications with the Thar and Párkar District and Bombay. Three important trade routes converge at Karáchi, placing it in direct communication with the interior of Sind, with Las Beyla and Kalat.

2.—HYDERÁBÁD.

Population.

1. The census of 1901 shows a population of 989,030 or 119·2 persons to the square mile, and occupying 177,022 houses. The number of houses has increased by 6,621, which is a striking proof of the advance made in the material comfort of the population. Of the total population, 744,632 are Muhammadans, 242,692 are Hindus, and the remainder represents persons under mixed denominations. The total number of males who follow agricultural pursuits, either as land-owners, cultivators or agricultural labourers, is 228,052, and the number following other than agricultural pursuits is 316,368.

Revenue.

2. The amount of revenue under the main heads in 1901-1902 was as under:—

Land revenue, including village cess, Rs. 22,41,837, local funds revenue Rs. 2,71,368, stamp revenue Rs. 1,72,430, excise revenue Rs. 3,71,883, salt revenue Rs. 2,33,022, municipal revenue Rs. 2,79,470, assessed taxes Rs. 90,060, and forest revenue Rs. 89,112.

Administration.

3. The twelve tálukas of the district are divided into three sub-divisions under the charge of three Assistant Colllectors. A portion of the district irrigated by the Jamrao Canal is in charge of an officer designated "Colonisation Officer," who is invested with the powers of a Collector. The District Judge is assisted by four Subordinate Judges. The Police administration is in the charge of a District Superintendent assisted by one Assistant and five Inspectors. The three Forest Divisions, Naushabro, Hyderábád and Jerruck, are each in the charge of a Divisional Forest Officer.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Sind.*

Agriculture.

4. The district is covered with a network of inundation canals, cleared and maintained at the cost of Government, which receive their supply from the Indus. The district contains a number of wells, more especially in the Naushahro Division, which are utilised more or less extensively in growing rabi crops (chiefly wheat), according to the character of the river inundation. In recent years, a great advance has been made in connection with the extension of irrigational works in the district. The Jamrao Canal scheme, which was proposed by the Irrigation Committee of 1891, has been carried out. The Dad extension project has also been executed, and that of the Nasrat and the Navlákhi are in course of execution. The total culturable area of the district is now returned to be 3,733,515 acres. Of these, 1,747,576 acres are in occupancy, 834,744 acres being under cultivation in 1901-1902. The principal crops grown in the district are great millet, spiked millet, rice, wheat and oil-seeds. The area under cotton cultivation is gradually increasing, more specially in the Jamrao tract, where the water-supply is more assured and constant. Garden cultivation is limited to the neighbourhood of large towns, where vegetables are also grown to a small extent.

Means of Communication.

5. The river Indus is navigable by country boats at all times of the year, and affords facilities of communication for the import and export of trade articles and agricultural produce for the areas in proximity to the river. During the past decade, a line of rail has been constructed which connects Hyderábád with Rohri, giving increased facilities of communication to the northern half of the district. The Hyderábád-Shadipali Railway, which existed in 1892-1893, has now been extended and joins the Bombay system by means of the Jodhpur-Bikánir line, thus opening up the eastern portion of the district. The southern portion forming the Tando Division is the only part which does not as yet enjoy railway communication. Traffic between Hyderábád and that portion of the district is still carried on by means of native boats on the Fuleli, which is practically a perennial canal, and on which steam launches have been of recent years introduced for passenger traffic.

3.—SUKKUR.

The Sukkur District until August 1901 formed part of the Shikárpur District, which consisted of 14 tálukas. With effect from the 1st August 1901, seven tálukas were detached and with 3 tálukas taken from the Karáchi District, were formed into the new Lárkhána District. The name of the district as it now remains was changed from Shikárpur to Sukkur with effect from the 1st January 1902.

Population.

1. The population is 523,245, distributed over an area of 541·60 square miles.

Revenue.

2. The gross revenue in 1901 was as follows :—

Land revenue Rs. 12,57,487, local funds Rs. 78,593, income-tax Rs. 70,963, excise Rs. 138,277, and stamps Rs. 1,69,679. The five municipalities raised a revenue of Rs. 3,60,977.

Administration.

3. The head-quarters of the district are at Sukkur. There are 7 tálukas distributed between the Shikárpur and the Rohri Sub-divisions, each of which forms the charge of an Assistant Collector. The Police administration is in the charge of a District Superintendent. There is a District Judge assisted by an Assistant Judge and three Subordinate Judges.

Agriculture.

4. The whole district is under irrigational settlement. The total cultivable land in the district is estimated at 1,735,040 acres, of which 683,285 acres are occupied. About one-half of this area was under cultivation in 1901-1902. The principal crops of the district are rice, wheat, jowári (great millet), oil-seeds (rape and sesame), pulses, and a little bájri (spiked millet), and cotton and vegetables.

Means of Communication.

5. Besides the trunk roads which connect the Sukkur District with the adjoining districts of Upper Sind, Lárkhána, Hyderábád and Karáchi, and the Native States of Khairpur and Baháwalpur, the North-Western Railway runs through it on both banks of the Indus. The new line, called the Kotri-Rohri Railway, on the left bank of the Indus, is an addition made in the last decade. The River Indus is also a convenient and cheap means of communication with large numbers of country boats plying on it.

4.—LA'RKHA'NA.

Population.

1. The district has been newly formed since the 1st August 1901 by the transfer of 7 tálukas from the Shikárpur District and 3 tálukas from the Karáchi District. The area is 5,090 square miles and the population 656,083.

Revenue.

2. The land revenue demand in 1901-1902 amounted to Rs. 21,40,280, and stamp revenue to Rs. 1,40,546. Excise yielded Rs. 1,61,611, and the income-tax Rs. 54,392. The local funds revenue was Rs. 1,33,767, while the five municipalities raised an income of Rs. 1,03,438.

Administration.

3. An Assistant or Deputy Collector is placed in charge of each of the three sub-divisions into which this district is divided. There is a District Superintendent of Police, in whom the executive management of the Police is vested. Three Subordinate Judges sit at Lárkhána, Sehwan and Mehar. The district is within the jurisdiction of the Sessions Court of Shikárpur.

POPULATION AND CENSUS.

4. The whole district is under irrigational settlement. The total area of cultivable land is 2,034,218 acres, of which 1,097,351 acres, or rather more than one-half, were occupied during 1901-1902. The cultivation is almost entirely dependent on canals taking off from the Indus. The principal crops of the district are rice, wheat, jowári, rapeseed, sesame, pulses, bájri, cotton and tobacco. Agriculture.

5. The North-Western Railway, which is a State line, runs through the district from Naodero in the Rato-dero Táluka to Sehwan. Means of Communication.

5.—THAR AND PA'RKAR.

1. The total population is 363,894. The Soda tribe, descended from the Rajput Chiefs who ruled the district before the British conquest, forms the upper class of Hindus. Some of them enjoy political pensions, and some hold jágirs from the British Government. Most of the families have been merged in the general populace and live on agriculture. The other sects of the Hindus are Bráhmans, Lohánas and Kirars. Among the Musalmáns there are two sects of Khosas—Ludani and Ghumnani—who at one time exercised considerable influence. They live in Nagar Párkar Táluka, and hold rent-free lands. Other branches of the Baluch tribes, such as Rinds and Maris, are also found in small numbers. Several sects of the Musalmáns, such as Wasans, Khaskhelis, Kirias, Rajars, &c., form the criminal tribe of Hurs or Lurs. The Criminal Tribes Act, XXVII of 1871, has been extended to them, and they have since been kept under close surveillance. The density is 27 to the square mile. Population.

2. The land revenue demand for 1901-1902 amounted to Rs. 10,12,196. The Local Funds revenue was Rs. 63,262. Receipts from excise were Rs. 94,600. Revenue.

3. The chief authority is vested in the Deputy Commissioner, who is invested with the powers both of a District Magistrate and of a Civil Judge. He is *ex officio* District Superintendent of Police, and is assisted by an officer of the Bombay District Police and by two Deputy Collectors. Administration.

4. Owing to the construction of the Jamrao Canal and its branches, the district is yearly increasing in importance. 55 per cent. of the culturable area is occupied and cultivated, but with the development of the Jamrao Canal works, the area under cultivation is expected to increase rapidly. Agriculture.

5. In addition to a number of roads which place the district in direct communication with Hyderábád, the Railway line between Hyderabad and Shadipalli, which has been converted into a narrow gauge line, has been pushed through the district to Jodhpur and Bikáner and connects with the Rajputána-Málwa line at Márwár. Means of Communication.

6.—FRONTIER DISTRICT OF UPPER SIND.

1. The population is 232,045 souls or 89 to the square mile. The majority of them are Baluch, chiefly of the Domki, Jakhráni, Buledhi (Burdi), Khosa, Jamáli and Bugti tribes. There are also a large number of Sindhi Musalmáns, Siráis and Játs. Population.

2. The land revenue in 1901-1902 amounted to Rs. 9,52,541, excise to Rs. 37,680 and income-tax to Rs. 13,877. The local funds collections were Rs. 93,174. The income of the municipality amounted to Rs. 90,939. Revenue.

3. The district is in charge of the Deputy Commissioner, who is assisted by a Deputy Collector. The Police are formally in charge of the Deputy Commissioner, but practically are administered by an Assistant Superintendent of Police. Administration.

4. The principal crops of the district are rice, jowári, bájri, til, sarsum (sarihu), jámbho (a kind of mustard), wheat and gram. A little cotton is grown on the river side, and other kinds of pulse, such as matar, mung, moth, &c., are not uncommon. The sandy lands near Jacobábád produce melons of very fair quality. Agriculture.

5. The Sind-Pishin branch of the North-Western Railway runs through the centre of the district, but there are only one station and one flag station within it. None of the canals are navigable. There are 1,148 miles of roads, mostly not very good, owing to the nature of the soil and the difficulty of obtaining materials for repairs. Means of Communication.

The census of the Bombay Presidency was taken on the night of March 1st, 1901. The results were greatly influenced by previous years of famine and plague, and the work of preparing for the census was rendered more than usually difficult by the same causes. Since 1896 the Presidency has been afflicted by a succession of famines, bad seasons, and plague epidemics. The effect of such calamities on the population is to be gathered from the formidable decrease that has taken place during the decade.

The most noticeable features of the statistical results of the census of the Presidency are—

(1) A considerable decrease in the population of the Presidency proper and Native States.

(2) A large increase in the population of Sind.

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(3) A substantial increase in the number of Christians.

(4) A general decrease in the portion of the persons afflicted with insanity, deaf-mutism, blindness and leprosy.

(5) A remarkable increase in the factory population.

The figures and the detailed information for the whole of the Bombay Presidency and for the Bombay City separately are contained in Vols. IXA and XIA of the Imperial Census Report. The Provincial Census Report (Vol. IX) and the Report on Bombay Town and Island (Vol. XI) contain explanations of, and comments on, the statistical tables.

The recent census was also noticeable for the introduction of a more accurate system of enumeration in Bombay City and the preparation of special statistics dealing with overcrowding in the same area.

DISTRIBUTION OF POPULATION.

According to the 1901 census the population of the territories administered by the Bombay Government is 25,468,209, of which British territory claims 18,515,587, and 6,908,648 are residents of Native States. The Settlement of Aden has a population of 43,974.

The population of the three administrative divisions, of Sind, and of the groups of Native States and the average density per square mile is as shown below:—

	Population.	Density per square mile.
British Districts	18,515,587	151
Bombay City	776,006	35,273
Northern Division...	3,513,532	256
Central do.	5,944,447	159
Southern do.	5,070,692	203
Sind	3,210,910	68
Native States	6,908,648	105
Gujarát Group	4,361,666	94
Konkan do.	350,684	225
Deccan do.	373,779	78
Karnátak do.	1,623,206	234
Khairpur	199,313	33
Aden	43,974	550

In British territory the density of population varies from 449 (the density of Kaira District) to 27 (Thar and Párkar), in Feudatory States from 319 (Kolhápur State) to 20 (Khándesh Agency). The density of Bombay City is nearly double that of Madras City (18,865, 1901). The most thickly populated parts are Kumbhárváda, Khára Taláo and Second Nágpáda, which show a density of over 500 persons per acre.

All Municipalities, Cantonments, Civil lines not within municipal limits, and any other collection of houses inhabited by not less than 5,000 persons were treated as towns. 199 places were thus treated as towns in British territory and 129 in Native States and Agencies. The information about towns and villages may be summarized as under :—

	British Districts.	Native States.
Under 500	16,091	11,656
500 to 5,000	9,579	3,372
5,000 to 50,000	220	93
50,000 and over	8	3

In the Bombay Presidency less than one-fifth of the population are to be found in towns of 5,000 and over. The districts containing large towns and important centres of trade show a high percentage (over 20) of population living in towns. The percentage of town residents is 19. It was 17 in 1891. In face of the opposing influences of plague and famine it is difficult to arrive at any conclusion concerning the progress of urbanization. Famine has a tendency to drive villagers to centres of trade in search of employment, while plague acts as a deterrent on those who would otherwise resort to the infected centres.

Towns with 100,000 inhabitants and other important towns (which were classed as *cities* for special reasons) were called *cities, and special statistics were compiled for these places. The* towns thus treated were—

Ahmedábád.	Broach.
Bombay.	Násik.
Karáchi.	Hyderábád.
Poona.	Hubli.
Surat.	Sholápur.
Belgaum.	Sukkur.

The greatest progress in population during the last twenty years was made by Hubli. It has added 60 per cent. to its population. Hyderabad has increased over 60 per cent. in the last thirty years, while Karáchi has doubled itself in that period.

[In the Presidency, outside the City of Bombay, the household average did not vary greatly in 1901 from that of 1891. In Bombay City, where a special attempt was made to ascertain the extent of overcrowding, a house was defined as "a separate building under one separate roof or all the space included under one undivided roof." A building which is provided with two or more roofs was considered to be a house if those two or more roofs were connected *inter se* by subsidiary roofs. In this case, therefore, the house unit differed from that adopted in 1891. The occupied houses numbered 5,004,095, of which 847,692 were in towns and 4,156,403 in villages. In British territory there were 3,483,837, of which 561,043 were in towns. The average number of inmates for the Presidency has fallen from 6 to 5 per house in spite of a very large increase in Bombay City due to the change in definition already described. This decrease is to be attributed to the decrease in population. Sind with a rising population shows an increase in houses. The classification of buildings in Bombay City by number of tenements is as follows:—

30,240	buildings containing	10 tenements and under.
3,436	,,	11 to 20.
1,370	,,	21 to 30.
604	,,	31 to 40.
113	,,	51 to 60.
65	,,	61 to 70.
36	,,	71 to 80.
27	,,	81 to 100.
13	,,	101 to 120.
2	,,	121 to 140.
2	,,	141 to 160.
1	,,	211 to 220.
1	,,	400 & over.

The distribution of persons by rooms is—

434,406	Persons	living in rooms each occupied by	5 persons and under.
179,107	do.	do.	6 to 9
84,415	do.	do.	10 to 19
20,722	do.	do.	20 and over.

The average population per inhabited building is 24.]

MOVEMENT OF THE POPULATION.

The history of the Bombay Presidency from 1891 to 1901 shows a succession of famines, bad seasons, and plague epidemics. These calamities disturbed the ordinary rate of increase of the population and might be expected to offer special inducements to people to emigrate from the Presidency for a time. It seems from the detailed examination of the census figures, however, that an inconsiderable portion of the decrease in population can be attributed to emigration.

The net variation per cent. in each of the divisions is as under:—

	Population.	Variation, 1891-1901.
		Per cent.
Bombay Presidency including Aden ...	—1,492,212	— 5·5
British Districts	—318,648	— 1·7
Northern Division	—404,245	—10·2
Central do.	—267,084	— 4·3
Southern do.	+ 62,629	+ 1·2
Sind	+335,810	+11·6
Bombay City	—45,758	— 5·5
Native States	—1,173,459	—14·2
Aden	—105	— 0·2

The reduction varies from 1 per cent in the case of Thána District to 18 per cent. in the district of Kaira. Only two districts show an increase, *viz.*, Dhárwár and Ratnágiri, each of 6 per cent. Four States, Akalkot, Savanúr, Sávantvádi and Janjira, show an increase of normal dimensions. The Mahi Kántha and Khándesh Agencies have lost 38 and 43 per cent. of their population.

The following figures will show the immigrant population of the Bombay Presidency:—

	In Thousands.	
	Bombay Presidency including Sind.	Sind.
Baroda	195	...
India excluding Bombay Presidency and Baroda	505	110
Asia excluding India	85	76
Europe	15	1
Other continents	1	...
Total Immigrant Population, 1901 ...	801	187
Do. do. 1891 ...	986	150

The following statement will show the distribution of immigrants per 10,000 of population in each district :—

District.	Born in Bombay Presidency.			Born in India beyond Bombay Presidency.		Born in Asia.		Percentage of Immigration to total Population.		
	In District where enumerated.	In contiguous Districts or States.	In non-contiguous Districts or States.	In contiguous territory.	In non-contiguous territory.	In contiguous territory.	In non-contiguous territory.	Total.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11
Bombay	2,343	408	5,915	...	1,134	...	82	76	80	71
Ahmedabád	8,134	1,522	179	...	144	...	2	18	16	21
Broach...	8,703	1,031	180	...	71	...	2	13	13	13
Kaira	8,994	805	141	...	53	...	1	10	6	14
Panch Maháls ...	8,734	895	131	...	250	...	1	13	12	13
Surat	9,191	299	383	...	107	...	2	8	8	8
Thána	8,634	248	910	...	156	...	2	13	16	11
Ahmednagar	9,234	314	57	325	59	...	...	8	6	9
Khándesh	9,476	122	158	157	77	...	1	5	5	5
Násik	9,438	199	133	73	149	...	1	5	5	5
Poona	9,051	556	178	...	134	...	4	9	9	9
Sátára...	9,614	287	67	...	13	...	...	4	3	5
Sholápur	8,954	442	56	506	41	...	...	10	9	11
Belgaum	9,123	709	99	...	56	...	...	9	7	10
Bijápur	9,256	289	231	196	25	...	...	7	7	8
Dhárwár	9,123	506	67	285	16	...	...	8	8	9
Kánara	9,056	480	126	153	180	...	...	9	10	8
Kolába	9,285	257	396	...	44	...	...	7	8	6
Ratnágiri	9,782	96	95	...	17	...	...	2	2	2
Karáchi	8,388	799	260	...	277	218	43	16	18	14
Hyderábád	8,964	442	318	...	245	...	27	10	10	10
Shikárpur	9,221	253	19	212	32	236	26	7	8	7
Thar and Párkar ...	7,909	631	484	...	959	...	19	23	13	17
Upper Sind Frontier...	7,119	1,002	178	...	375	179	1,144	28	24	56

From this it will be seen that next to Bombay City Sind has the largest proportion of immigrants, mostly coming from Asia ic countries beyond India. The comparison of the figures of 1891 and 1901 shows that the number of foreign-born in the Sind districts has increased by 22 per cent. This may be taken as one of the reasons for the general increase in Sind. The Punjáb sends a large population to Sind.

The emigrant population traced from the Census Reports of other provinces is 620,000. In 1891 the total was 700,000.

It will thus be seen that the effect of emigration on the decrease of the population is practically *nil*.

A comparison of the population estimated from the data available in vital statistics with the actual population in 1901 shows that registration of births and deaths has not yet attained a high standard of accuracy. The following figures show the extent to which British districts suffered from famine and plague :—

Population in 1891	18,834,235
Population estimated from rate of increase, 1872—1891	21,050,178
Census of 1901	18,515,587
Decrease due to famine, plague, cholera and reduced birth rate	2,534,591

The total recorded plague mortality from 1896 to 1901 was 280,000 and the decrease due to a reduced birth rate and to migration to Feudatory States was 285,000.

Religion and Sect.

The religions returned and the numerical strength of each are shown below :—

Religion.	Total Population excluding Aden.		Territorial.						Aden.
	Males.	Females.	Northern Division.	Central Division.	Southern Division.	Sind.	Bombay City.	Native States.	
Hindu	10,139,052	9,777,386	2,961,796	5,462,081	4,513,585	751,252	503,608	5,719,116	2,725
Sikh	1,033	469	604	324	35	.....	88	451	71
Jain	279,544	256,406	65,458	73,834	73,069	921	14,248	308,420	166
Buddhist	353	119	27	33	17	.....	395	.....	75
Zoroastrian	40,246	38,306	22,543	4,263	644	2,000	46,231	2,871	328
Musalmán	2,430,184	2,137,111	330,575	347,984	445,799	2,446,489	155,747	840,701	33,581
Christian	121,828	94,290	73,684	43,130	35,154	7,817	45,176	11,157	3,969
Jew	5,461	5,399	609	1,086	2,389	428	5,357	991	3,059
Animistic	46,938	47,907	58,230	11,697	.....	.....	3	24,915	...
Others	1,243	960	6	15	.....	2,003	153	26	...
Total ...	13,065,882	12,358,353	3,513,532	5,944,447	5,070,692	3,210,910	776,006	6,908,648	43,974
Aden	30,530	13,444	.....	.....	.....	.....	.....	.....	...

These represent the following percentages on the total population and the percentage of variation in the period 1891-1901 :—

British Territory.

Religion.	Percentage on total population.	Percentage of variation 1891-1901.
Hindu	76·6	−3
Musalmán	20·1	+6
Jain	1·2	−5
Christian	1·1	+29
Pársi	0·4	+2
Animistic	0·4	−67

The most noticeable features of the last decade are the very large increase in Christians and a striking decrease in the people classed as Animistic. The districts and States in which the increase in Christians is most noticeable are—

Kaira, with an increase of	23,000	or 1,000	per cent.
Ahmednagar „	14,500	or 200	„
Ahmedábád „	1,900	or 120	„
Kolhápur State „	1,100	or 80	„

The figures by age periods of Christians in the affected districts show that the age periods, of the maximum increase (nearly 500 per cent.), are between 5 and 15. Ordinarily the increase due to natural causes is 10 per cent. The excess seems to be the result of recent conversions to Christianity, largely among children between 5 and 15. The reasons for the decrease in Animism are—

(1) The general incapacity of enumerators to understand the distinction between Hinduism and Animism.

(2) The heavy mortality in recent famine.

(3) The tendency of the tribes to become converts to Hinduism.

Bhils, with a proportion of 619 workers and 733 dependants per 10,000, stand fourth in the list of castes and tribes which took advantage of famine relief works. This fact, combined with a large decrease in the Bhils and other wild tribes, suggests that the decrease is very largely to be attributed to famine. The term Animist was used to denote those primitive people who display a tendency to worship, with a view to propitiate, anything they do not understand, such as the manifestation of great power or any object of unusual shape or form. But the application of the definition was not uniform and the statistics must therefore be received with caution.

SECT.

The main Hindu sects are—

(1) Vaishnav or Bhagwat, followers of Vishnu, with whom the Rámánuj, Rámánandi Vallabháchári, Madhváchári and Virvaishnav may be classed.

(2) Shaiv or Smart, *i.e.*, followers of Shiv. This sect (3,000,000) is more numerous than the Vaishnav (500,000).

(3) Lingáyats or Virshaiv number over 800,000.

The chief sects of the Jains are—

(1) The Digambars, numbering about 59,000, who worship naked idols and gurus.

(2) The Svetambars, numbering nearly 64,000, who dress their idols in cloths and adorn them in other ways.

(3) The Dhondias, a small division of less than 8,000, who worship their gurus, put on white apparel and wear a stripe of white cloth on their lips. They do not worship idols.

Among Musalmáns the Sunnis appear to be the most numerous. It may be noted that a new sect has been founded by Mirza Ghulam Ahmed, Chief of Quadian. The followers of this sect are over 10,000. They repudiate the doctrine of *jehad* with the sword and do not even look forward to its enforcement at any future time. Wars undertaken for the propagation of religion are regarded as unlawful.

Under "Other Religions" about 2,000 persons have been returned, the majority of whom are Gulábdási (757), A'rya Samáj (371), Rádháswámi (137), and Sanjogi (619).

The Gulábdásis are an Epicurean sect from the Punjáb.

AGE, SEX AND CIVIL CONDITION.

The majority of the residents of India are ignorant of their ages. The figures given in this paragraph must thus be received with caution. The mean age of the total population (27) remains unaltered in spite of the decrease in population. The distribution of the people by

POPULATION AND CENSUS.

age period for areas affected tends to show that where famine was most severe the result has been most noticeable in the reduction of children under 5 and persons over 60. The highest mean age is that of Pársis (29·4). This is due to steady decrease in births. The Pársis have the smallest number of children under 5.

The proportion of sexes is vitiated to some extent by the concealment of or failure to enter women. Uneducated natives regard the number of women in their establishment as a matter of no importance. A householder sheltering an unmarried girl of marriageable age is disposed to save a scandal by omitting her from the census return. Sex returns are therefore not wholly reliable. The total numbers of each sex are—

	Males.	Females.
British territory	9,552,879	8,962,708
Native States and Aden	3,543,533	3,409,089

and the proportion of females is 938 to 1,000 males.

Ratnágiri shows an excess of females over males while Bombay City shows the reverse.

Ratnágiri district sends to Bombay a large number of labourers who do not take their womenfolk with them. In the Sind districts the proportion of women is very low. This has led in the past to a trade in women along the Indus river from the direction of the Punjáb. Women are in excess among Kaikadis (1,095), Katkaris (1,036), Bhils (1,015), Náikdás (1,015), Mahárs (1,006), Berads (1,004), and Karvis (1,024), whereas they are in defect among Brahmans (916) and Vanis (894). It would appear that an excess of females over males is particularly noticeable among the low castes and wild tribes.

Statistics dealing with marriage show—

	Males.	Females.
Unmarried	6,261,568	4,072,853
Married	5,972,759	6,002,230
Widowed	831,555	2,283,270

The widowed among men and women have increased largely (161 and 237 respectively in 10,000 of each sex). The age period 0—10 unmarried shows a decrease of 250 in 10,000 of the male population. The increase in the unmarried on the whole, however, is very small (139 in 20,000).

It is noteworthy that 10,000 males in the age period 10—15 shew 85 per cent. still unmarried, whereas in the case of females it is only 50 per cent. Even more remarkable is the fact that females married in the early age period 0—10 are more than three times as numerous as the males (717 females in 10,000 females in the age period 0—10).

The proportion of widowed females to 1,000 widowed males is very high in Ratnágiri (5,862), Sátára (4,005), Kolába (3,794). This suggests that the plague epidemic in Bombay City to which the male population of the districts emigrate annually has carried off many of the immigrant husbands.

EDUCATION.

In the census of 1891, statistics for Education were divided into three heads—literate, illiterate and learners. Some learners were classed as literates, others were not; some illiterate were learners, but inasmuch as they were not learning to read and write they were classed as illiterate. The confusion that ensued has been removed at the recent census by abolishing the class of learners and dividing the population into two classes—literate, *i.e.*, those who can read and write, and illiterate.

Out of the population of 25½ millions only 1½ millions (including 100,000 women) are literate. The distribution of literates is as under.

Division.	No. of males literate.	No. of females literate.	No. of literates in 1,000 males.	No. of literates in 1,000 females.
Bombay City	119,467	28,443	249	95
Northern Division	323,601	26,215	179	15
Central Division	273,878	15,085	92	5
Southern Division	277,285	9,681	110	4
Sind	86,956	7,517	49	5
Native States	426,192	24,475	121	7
Aden	7,452	436	244	32
Total, inclusive of Aden ...	1,514,831	111,852	113	19

A comparison of the figures of the last few censuses show that former progress has been maintained and that in the last 30 years the number of literates has been increased by 1,000,000.

If the statistics of the leading religions are examined it will be observed that Christians and Párs stand highest, and that their rate of progress is double that of the Hindús. The following table brings out these facts :—

Religions.	No. of literates to 1,000.	Rate of progress from 1891 to 1901.
Pársi	650	+34 per cent.
Christian	294	+34 „
Jain	269	+11 „
Hindú	59	+17 „
Musalmán	41	+15 „

The reason for the small ratio of literates among Christians is to be found in the numerous converts on the coast who became Roman Catholics several centuries ago, but who have as yet evinced no desire to improve their position by acquiring a knowledge of reading and writing. It appears that many of the recent conversions to Christianity have also been from the illiterate classes.

The Jains of Gujarát, who are mostly Vánis or traders, show a higher standard of literacy than those of the Southern Maráthá Country, who are for the most part cultivators.

The Musalmáns stand at the bottom of the scale of literacy.

The position of some selected castes on the educational ladder will be gathered from the following index figures calculated on 10,000 population of each :—

Brahmans	322	Maráthá	28
Prabhu	327	Koli	13
Váni	444	Maráthá Kunbi	11
Bhatia	181	Dhed	7
Lingáyat	69	Mahár	1
Lohána	157		

If the Sind Bráhmans, who are notoriously illiterate, are omitted, the figure for that caste would be 343. Female literates are most numerous among the Prabhus, closely followed by the Vánis.

The Gujarát districts stand comparatively high in literacy (200 in 1,000 males), and show a remarkable progress (36 per cent. increase in males) during the last ten years.

The census enumerators were asked to take cognizance of the knowledge of English and instructed to exclude from the statistics those who have merely acquired a certain degree of familiarity with the language by contact with Englishmen. The statistics thus only include those who have reached a high standard of proficiency in English and yet the increase in the last decade is nearly 100 per cent. Their distribution according to religion is as under :—

	No.	No. per 1,000 of the population.
Hindus	79,970	4
Christians	45,348	209
Parsis	20,252	258
Musalmáns	10,524	2
Jains	5,036	9

Christians show 6 per cent. of their womenfolk as literate in English and the Parsis 5. The Jain women fail lamentably to approach the high standard set by their menkind (only 34 women in the Jain population of 535,950 know English).

The position of each of the selected castes in the comparative study of castes by literacy in English will be seen in the following figures :—

	Per 1,000.		Per 1,000.
Prabhus	156	Lohánás	20
Bráhmans	53	Bhátiás	19
Vánis	33		

Among Prabhus the female literates in English are over 8 per 1,000. No other caste examined shows as high an average as 1.

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INFIRMITIES.

Enumerators were directed to collect particulars of the population afflicted with insanity, deaf-mutism from birth, blindness of both eyes, and corrosive leprosy. The number and the decrease in each may be gathered from the accompanying table.

	1881.		1891.		1901.	
	British Districts.	Native States.	British Districts.	Native States.	British Districts.	Native States.
Insane	7,754	2,184	6,286	1,994	3,889	796
Deaf-mutism	11,857	4,737	11,608	4,697	6,980	2,143
Blind	43,755	18,473	28,054	13,023	16,275	5,388
Leper	10,095	2,287	10,186	2,554	5,717	1,186

The decrease is most noticeable during the last ten years. The more restricted use of intoxicants, as well as the application of the fruits of medical science, are, to some extent, the cause of the decrease. The decrease in the famine-stricken districts is about 50 per cent., while in the districts comparatively unaffected by the scarcity it is only 24 per cent. on an average. It may, therefore, be assumed that the scarcity pressed most hardly on the infirm, and the famine is thus the cause of the decrease during the last decade.

It will be observed that under the head of insanity, Christians stand at the head of the list and Hindus at the bottom. Table XII-A (*vide* Census Report, Volume IX-A) shows that Bráhmans head the list in deaf-mutism, Eurasians, Mahárs, Marátha Kunbis in blindness, and Mahárs, Marátha Kunbis and Maráthas in leprosy. The highest ratio of insanity is to be noticed, after Sind, in Dhárwár and Kánara. The districts of Ahmednagar, Khándesh, Poona, Sátára, Sholápur, Kolába and Ratnágiri show a high percentage of lepers. The comparison of the afflicted by sex shews that women suffer equally with men from blindness, but men suffer more from insanity. Women suffer least from leprosy in comparison with men. Insanity is most prevalent in mendicants, most of whom are in the habit of using intoxicating drugs.

OCCUPATION.

The occupations of the people were recorded in the schedules on three columns: one for workers; one for dependants; and one for subsidiary occupations. Information distinguishing between workers and dependants was thus for the first time rendered available.

The scheme for classifiying the occupations of the people remained unchanged. 520 occupations were returned, and the statistics have been compiled in the following form:—

Occupation.	Total strength.	Actual workers.				Dependants.
		Total.		Partially agriculturist.		
		Males.	Females.	Males.	Females.	

This will enable the reader to understand at a glance the number of actual workers and of those dependent on them. Further it can be seen how many claim agriculture as their subsidiary occupation. The general distribution of people by occupations is as under.

General Distribution by Occupation.

Order and Sub-order.	Percentage on total population.		Percentage in each order and sub-order of	
	Persons supported.	Actual workers.	Actual workers.	Dependants.
I.—Administration	3	1	37	63
1. Civil service of the State	1	...	35	65
2. Service of Local and Municipal Bodies	...	...	38	62
3. Village service	2	1	39	61
II.—Defence	...	...	68	32
4. Army	...	...	66	34
5. Navy and Marine	...	...	88	12
III.—Service of Native and Foreign States	...	...	42	58
6. Civil officers	...	...	34	66
7. Military...	...	...	88	12

Order and Sub-order.	Percentage on total population.		Percentage in each order and sub-order of	
	Persons supported.	Actual workers.	Actual workers.	Dependants.
IV.—Provision and care of animals	2	1	66	34
8. Stock breeding and dealing	2	1	66	34
9. Training and care of animals	...	...	34	66
V.—Agriculture	59	32	54	46
10. Landholders and tenants	42	22	53	47
11. Agricultural labourers	17	10	57	43
12. Growers of special products	...	...	53	47
13. Agricultural training and supervision and forests	...	...	35	65
VI.—Personal, household, and sanitary services	3	2	52	48
14. Personal and domestic services	3	2	52	48
15. Non-domestic entertainment	...	...	50	50
16. Sanitation	...	...	56	44
VII.—Food, drink, and stimulants	6	3	45	55
17. Provision of animal food	2	1	50	50
18. Provision of vegetable food	2	1	46	54
19. Provision of drink, condiments and stimulants	2	1	41	59
VIII.—Light, firing, and forage	1	1	49	51
20. Lighting	...	...	44	56
21. Fuel and forage	1	1	49	51
IX.—Buildings	1	...	39	61
22. Building materials	..	...	43	57
23. Artificers in building	1	...	37	63
X.—Vehicles and vessels	...	...	45	55
24. Railway and tramway plant	...	...	47	53
25. Carts, carriages, &c.	...	...	36	64
26. Ships and boats	...	...	37	63
XI.—Supplementary requirements	...	...	42	58
27. Paper	...	...	36	64
28. Books and prints	...	...	40	60
29. Watches, clocks, and scientific instruments	...	...	35	65
30. Carving and engraving	...	...	35	65
31. Toys and curiosities	...	...	32	68
32. Music and musical instruments	...	...	34	66
33. Bangles, necklaces, beads, sacred threads, &c.	...	...	47	53
34. Furniture	...	...	40	60
35. Harness	...	...	44	56
36. Tools and machinery	...	...	42	58
37. Arms and ammunition	...	...	41	59
XII.—Textile fabrics and dress	5	3	53	47
38. Wool and fur	...	...	52	48
39. Silk	...	...	48	52
40. Cotton	3	2	56	44
41. Jute, hemp, flax, coir, &c.	...	...	53	47
42. Dress	2	1	43	57
XIII.—Metals and precious stones	2	...	36	64
43. Gold, silver, and precious stones	1	...	34	66
44. Brass, copper, and bell-metal	...	...	35	65
45. Tin, zinc, quicksilver, and lead	...	...	40	60
46. Iron and steel	1	...	37	63
XIV.—Glass, earthen and stone ware	1	...	51	49
47. Glass and china ware	...	...	36	64
48. Earthen and stone ware	1	...	52	48
XV.—Wood, cane and leaves, &c.	2	1	44	56
49. Wood and bamboos	1	1	38	62
50. Canework, matting and leaves, &c.	1	...	59	41
XVI.—Drugs, gums, dyes, &c.	...	...	45	55
51. Gums, wax, resins, and similar forest produce	...	...	44	56
52. Drugs, dyes, pigments, &c.	...	...	45	55
XVII.—Leather	1	1	47	53
53. Leather, horn, and bones	1	1	47	53
XVIII.—Commerce	2	1	38	62
54. Money and securities	1	1	34	66
55. General merchandise	...	...	37	63
56. Dealing unspecified	1	...	44	56
57. Middlemen, brokers and agents	...	...	35	65
XIX.—Transport and storage	2	1	44	56
58. Railway	...	...	37	63
59. Road	1	1	43	57
60. Water	1	...	53	47
61. Message	...	...	38	62
62. Storage and weighing	...	...	37	63

Order and Sub-order.	Percentage on total population.		Percentage in each order and sub-order of	
	Persons supported.	Actual workers.	Actual workers.	Dependants.
XX.—Learned and artistic professions	2	1	40	60
63. Religion	1	...	42	58
64. Education	...	...	36	64
65. Literature	1	1	37	63
66. Law	...	...	30	70
67. Medicine	...	...	40	60
68. Engineering and survey	...	...	33	67
69. Natural science	...	...	38	62
70. Pictorial art and sculpture	...	...	46	54
71. Music, acting, dancing, &c.	...	...	46	54
XXI.—Sport	...	...	50	50
72. Sport	...	...	45	55
73. Games and exhibitions	...	...	53	47
XXII.—Earthwork and general labour	6	4	60	40
74. Earthwork, &c.	...	...	56	44
75. General labour	6	4	61	39
XXIII.—Indefinite and disreputable occupations	...	...	82	18
76. Indefinite	...	...	93	7
77. Disreputable	...	...	68	32
XXIV.—Independent	2	1	60	40
78. Property and alms	2	1	61	39
79. At the State expense	...	...	47	53

From this it will be seen that—

59 per cent. are supported by agriculture,
6 „ „ earthwork and general labour,
6 „ „ supply of food, &c.,
5 „ „ textile fabrics and dress,
3 „ „ administration,
3 „ „ personal household and sanitary service,

and the rest are evenly distributed and do not exceed 2 per cent in any case.

The agricultural population falls below 50 per cent. in only two districts, Ahmedábád and Karáchi, which both contain industrial centres in the form of large cities. Ratnágiri (76) and Upper Sind Frontier (74) stand highest. Shikárpur, Surat and Ahmedábád, the leading industrial districts, show 31. 35 and 27. per cent. of their population supported by the preparation and supply of material substances. Thána with only 4 per cent. has the smallest share. Ahmedábád district is the only one where the commercial population exceeds 2 per cent. of the whole. Kaira district with 4 per cent. shows the highest population of professional workers. After it comes Ahmedábád with 3 per cent. The most noticeable variations in the figures for 1891 and 1901 are—

In orders of Occupations.

No.	Order.	Population supported in 1901.	Population supported in 1891.	Percentage of variation, (+) or (−).
I	Administration	519,910	615,235	−15
II	Defence	27,590	44,042	−37
III	Service of Native and Foreign States	7,599	6,631	+15
IV	Provision and care of animals	323,201	259,837	+24
V	Agriculture	11,027,851	11,008,233	+·2
VI	Personal, household and sanitary services	590,402	482,575	+22
VII	Food, drink and stimulants	1,093,053	1,428,088	−23
VIII	Light, firing and forage	246,681	288,154	−14
IX	Buildings	163,137	151,138	+8
X	Vehicles and vessels	16,944	15,860	+7
XI	Supplementary requirements	85,419	122,026	−30
XII	Textile fabrics and dress	884,083	1,024,690	−14
XIII	Metals and precious stones	286,710	285,112	+·6
XIV	Glass, earthen and stone ware	118,489	116,685	+2
XV	Wood, cane and leaves, &c.	291,927	328,496	−11
XVI	Drugs, gums and dyes	20,875	22,897	−9
XVII	Leather, &c.	205,951	241,607	−15
XVIII	Commerce	317,949	400,234	−20
XIX	Transport and storage	308,547	382,025	−19
XX	Learned and artistic professions	323,969	402,948	−19
XXI	Sport	8,831	14,222	−38
XXII	Earthwork and general labour	1,194,598	858,375	+39
XXIII	Indefinite and disreputable occupations	61,154	28,336	+116
XXIV	Independent	434,691	370,704	+17

Selected Occupations, 1901 and 1891.

Serial Number.	Occupations.	Population supported in 1901.	Population supported in 1891.	Percentage of variation, (+) or (−).
1	2	3	4	5
1	Cotton weavers	227,303	294,509	−23
2	Cotton cleaners, pressers and ginners	14,394	44,596	−68
3	Cotton spinners, sizers and beaters	73,306	71,215	+3
4	Silk carders, spinners and weavers, makers of silk-braid and thread	46,779	48,386	−3
5	Fishermen and fish-curers	93,924	124,734	−25
6	Oil pressers	52,156	98,422	−47
7	Potters, and pot and pipe bowl makers	97,660	103,033	−5
8	Dealers in timber and bamboos	13,458	13,344	+1
9	Baskets, mats, fans, screens, brooms, &c., makers	65,925	76,209	−13
10	Leaf-plate makers	7,552	7,343	+3
11	Comb and tooth-stick makers	5,052	8,763	−42
12	Paper makers	2,570	3,555	−28
13	Toy, kite and cage makers	1,292	*33,811	−97
14	Cow and buffalo keepers and milk and butter sellers	55,736	63,771	−12
15	Madder, saffron, and logwood workers and dealers	74	190	−61
16	Wool dyers	653	93	+602
17	Cotton dyers	26,129	38,024	−31
18	Silk dyers	882	1,353	−35
19	Leather dyers	15,928	14,132	+12
20	Calenderers, fullers and printers	7,273	5,097	+42
21	Brass, copper and bell-metal workers	19,675	17,890	+10
22	Makers of bangles other than glass	3,454	1,601	+115
23	Rosary bead and necklace makers	455	1,812	−75
24	Tanners, curriers and hide sellers	16,260	47,690	−66
25	Chemists and druggists	1,395	2,722	−49
26	Soap makers and sellers	2,120	1,697	+25
27	Ink makers	766	650	+18
28	Antimony preparers	7	162	−95
29	Perfume and essence preparers	2,015	4,905	−59
30	Catechu preparers	280	294	−5
31	Rope, sacking and net makers	38,706	57,601	−33
32	Lime and shell burners	10,244	15,147	−32
33	Painters, plumbers and glaziers	4,305	3,285	+31
34	Brick and tile makers	25,329	5,902	+329
35	Ghi preparers	5,071	22,691	−77
36	Silk-worm rearers	69	146	−52
37	Wood turners and lacquerers	1,742	1,873	−7
38	Carmine and aniline dyes	83	82	+1
39	Hukkas' stem turners	358	316	+13
40	Lac collectors	59	117	−50
41	Knife and tool makers	191	3,653	−95
42	Knife and tool grinders	1,085	1,302	−16
43	Umbrella makers and sellers	399	511	−22
44	Match, candle, torch, lamp and lantern makers	1,886	943	+100
45	Well sinkers	1,853	1,055	+75

* Includes bird stuffers.

Carelessness on the part of the enumerators leads to the record of indefinite entries such as "factory," "servant," "shopkeeper," &c. The undefined, therefore, show a large increase. Earthwork and general labour show an increase of 40 per cent. largely on account of well sinking and public relief works undertaken in connection with the famine. A comparison of persons dependent on the silk and cotton industries between 1901 and 1891 gives the following results:—

	1891.	1901.
British territory	633,000	635,600
Native States	336,000	177,000

Thus in spite of adverse circumstances there has been some slight progress made by these industries during the last ten years in British territory. In Native States they have suffered greatly. The following figures will show the population supported by the power industries in British territory distinguished from the hand-workers:—

Cotton ginning, cleaning and pressing.

	Persons supported.
A. In factories	28,064
B. Hand-workers	14,394

Cotton spinning and weaving.

A. In factories	168,043
B. Hand-workers	300,609

A comparison of the statistics of workers in silk and cotton for the year 1881 and 1901 shows that in British territory the number has decreased to 355,000 from 493,000. In Native States the decrease is formidable (209,000 to 90,000). The increase in butchers and the

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reduction in the number of ghi preparers and sellers, as well as in cow and buffalo-keepers and milk and butter sellers, is attributable to famine. A match factory is entered for the first time and is represented by a staff of three with eight dependants.

Agricultural labourers have increased from 2,019,000 to 3,141,000 in spite of the general decrease. The depression in other occupational means is responsible for this increase. The figures of persons supported by agriculture are as under:—

British Districts.

Kind of occupation.	Total strength.	Actual workers.		Dependants.
		Males.	Females.	
Rent receivers	7,052,016	2,316,620	1,440,198	3,295,198
Rent payers	763,447	273,341	106,756	383,350
Farm servants	144,983	79,351	14,103	51,529
Field labourers	2,996,041	1,027,574	666,840	1,301,627
Growers of special products	59,716	22,368	9,068	28,280

The difference of 90,000 in village service is partly due to mortality and partly to difference of classification. The increase of 50 per cent. in sweepers and scavengers suggests progress made in sanitation.

Religious mendicants have lost 90,000 out of 160,000. The decrease is due to the mortality and restrictions on public charity imposed by periods of agricultural distress.

Petition writers show a marked increase (2,226 to 6,826).

Sculptors and photographers have nearly doubled in the last ten years. The occupations which show the highest proportion of workers are—

Stock-breeding and dealing	66
General labour	61
Cane-work, &c.	59
Agriculture labour	57
Sanitation, cotton, earthwork	56

Women and children undertake all these occupations and share them with adult males. The occupations which show the largest number of dependants are those in which the nature of the employment is such as not to allow women and children to share it with adults. Female workers are found in large numbers in the following occupations:—

	In thousand.
Pasture and agriculture	2,267
Personal service	62
Preparation and supply of material substances	484
Unskilled labour not agricultural	339

Women's occupations include minor occupations such as cattle tending, field labour, domestic service, the collection of fuel, especially cowdung, the cleaning of cotton and other occupations that are largely followed by women.

Six per cent. of the persons returned under Defence have agriculture as their subsidiary occupation; 5 of those returned under Administration and 3 of the following groups:

1. Personal service,
2. Vehicles and vessels,
3. Glass and stone-ware,
4. Wood, cane and bamboo,
5. Leather,

have a similar additional occupation.

CASTE, TRIBE AND LANGUAGE.

Successive invasions of India from the north-west, each one pushed further southwards by the pressure of its successor, have resulted in a stratification of the population in layers which may roughly be said to run parallel to a line drawn from east to west of the continent.

The Bombay Presidency consists for the most part of a long strip of coast line, and extends from 29° to 14° North latitude. It thus intersects many of the social strata deposited by these early invasions, and contains within its limits a variety of castes and tribes hardly equalled by any other of the great provinces in India. Physical surroundings have no small influence on the character and customs of the human race. A heterogeneous nature is to be expected for a population distributed over the sandy plains of Sind, the fertile fields of Gujarát, the long seaboard of the Konkan, the mountainous and inaccessible regions of the Western Ghats, and the picturesque, if fever-haunted, forest tracts of the Southern Maratha Country.

The natural divisions of the Presidency distinguished by other special influences on the development of caste and tribe are five in number, *viz.*, Sind, Gujarát, the Dakhan, the Konkan and the Karnátak. To Sind and its predominant Musalmán population reference will be made below. Gujarát has remained for the most part true to Hinduism. Petty Mahomedan kingdoms, as well as the temporary incursion of the Moghuls of Delhi, have left their influence in many parts of the Province,—an influence to be traced in the formation of certain castes of converts, such as the Momna Kunbis and Molesaláms, looking to Islam for their religion and to Hinduism for their social structure. The former numerous political sub-divisions of the province, which was for centuries split into rival Hindu kingdoms, display the effects of political boundaries on the evolution of caste divisions. The large caste groups designated comprehensively by the term Bráhman and Váni exhibit in Gujarát a minuteness of sub-division, elsewhere unrivalled in the Presidency, and the fact that many of these smaller groups bear the same name in both castes *e.g.*, Agarval, Harsola, Kapol, Khadayata, Khedval, Mevada, Nagar, Osval and Shrimali, lend support to the inference that a common cause of caste fusion in the past is to be traced on the influence of political boundaries.

In marked contrast to Gujarát with its amplitude of caste divisions, the Dakhan contains a comparatively homogeneous population. Of the total population of the Dakhan districts 30 per cent. or about one-third are Maráthás, between whom intermarriage is permissible, provided that there is comparative equality of social position, while of the 6 per cent. of the remainder who are Bráhmans, only 13 local divisions are to be found to compare with the 170 of Gujarát. The causes which have led in the past to the crystallization of small fragments of castes further north have evidently been inoperative in the Dakhan.

The coast line of the Konkan, or sub-montane tracts, possesses a special feature in the large number of Christians, for the most part Roman Catholic, which its population contains, and exhibits the singular spectacle of the maintenance of caste distinctions within the fold of an essentially casteless religion. The sixteenth century witnessed in the halcyon days of Portuguese dominion the forcible conversion of many local castes, of which the unconverted fragments remain to add to the diversity of social divisions, largely due to the arrival of numerous immigrants by sea.

The Karnátak, or Southern Marátha Country, is the seat of Lingáyatism, a Hindu reformed sect dating from the twelfth century. Social divisions among the Lingáyats, who form the bulk of the population in this portion of the Presidency, would seem to be based both on religion and function, according to the stage in the history of the reformation at which the convert caste accepted the new social system that it evolved.

In the Ghát tracts of the Dakhan and Khándesh, where the broken ground and thin soil scarcely permit remunerative cultivation, Bhil and Koli tribes eke out a precarious existence. As hunters and collectors of forest produce they represent the nearest approach to the aboriginal inhabitants of the country.

The terms *caste* and *tribe* are commonly used without any clear perception of the precise significance of either; nor is it easy to arrive at a satisfactory definition which is not too greatly at variance with their common or colloquial meaning. It has been aptly said that caste is the largest group based on common occupation, and tribe, the largest group based on common descent; but in practice the former, at least, of these definitions proves somewhat too restricted. Castes may be found which are based on religion and descent, such as the Lingáyats or Maráthás of the Bombay Presidency, while the premier caste of all, the Bráhmans, seem at the present day to be identifiable more by social precedence involving the right to perform certain ceremonies than by any common form of occupation.

Some reflections on the leading aspects of the castes and tribes of Bombay at the present day will be found in the report of the Provincial Superintendent of the Bombay Census of 1901 (See Chapter VIII, Volume IX). The main castes and tribes which in most instances include numerous endogamous sub-divisions number over five hundred. Of these castes and tribes only a comparatively small number exceed 100,000. In the Presidency (excluding Sind) these are —

1. Maráthás.
2. Kunbis (other than Maráthá Kunbis).
3. Kolis.
4. Lingayats.
5. Dheds, Holiás and Mahárs.
6. Bráhmans.
7. Vánis.
8. Dhangars, Kurubas and Bharvads.
9. Bhils.
10. Rajputs.
11. Mochis and Chámbhárs.
12. Mális.
13. Mángs.
14. Kumbhárs.
15. Sutárs.
16. Agris.
17. Sonárs.
18. Hajáms and Nhávis.
19. Berads.
20. Bhandáris.
21. Wárlis.
22. Darjis.
23. Telis and Ghánchis.
24. Thákurs.
25. Lohárs.
26. Vanjáris.
27. Rabáris.
28. Ahirs.

The Maráthás consist of 1,900,000 Kunbis, 350,000 Konkanis and 1,400,000 Maráthás not otherwise specified. The term Marátha is, in some respects so loosely applied that it is difficult to determine its precise significance. It is used to describe members of various castes living in Maháráshtra, those whose mother tongue is Maráthi, and more correctly, perhaps, to designate the descendants of Shiváji's warriors, not excluding the present Marátha Kunbi and the below-ghat Marátha, who were the backbone of the Peshwa's confederacy. It is the

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common impression at the present day that the Maráthás properly so called are divided into two groups which do not intermarry, the Kunbi or agriculturist being the inferior, and the warrior, landowner, or high class Maráthá, claiming a superior origin. The latter, indeed, profess to be of Rajput descent, to consist of ninety-six clans or families, and to be entitled to the dignity of Kshatriya. They support their claims to ascendancy in the social scale by favouring infant marriage, forbidding the re-marriage of widows, and wearing the sacred thread. The Kunbi, on the other hand, does not claim to be a Kshatriya, allows adult marriages and the re-marriage of widows, and wears no thread to indicate the twice-born status. The dividing line is not of the nature of a permanent barrier and can be passed by wealthy Kunbis with ambition in proportion to their means. There is some historical evidence in support of the claims of certain Marátha families to Rajput descent. This does not, however, throw light on the origin of the main body of the caste, or tribe (as it should most correctly be styled). The indications of a former social organization of the tribe on a totemistic basis, which are now attracting attention, would seem to point to a mixed origin for the greater number of the present day Maráthás.

The Lingáyats, who number 1,422,000, are a religious community, resident in the southern portions of the Presidency. Having first come into prominence in the days of the religious reformer Basappa of Kalyán, who lived in the twelfth century, they seem at first to have disregarded caste distinctions and the social organization of the highest groups among the Lingáyats appears to be dependent on initiation to the present day. Converts who joined at a later date are ranged in sub-divisions based on occupation, ordinarily that of their unregenerate days, while a third class of half Lingáyats, or low castes attached to the community for menial services, is recognized. One of the tests of a Lingáyat's claims to so describe himself is his right to the *ashtávarna* or eightfold sacrament. Lingáyats of the present day are disposed to call themselves Hindus, and to apply to their sub-divisions Manu's fourfold caste system.

The Bráhmans of the Presidency number 1,053,000. Apart from the intellectual and social pre-eminence of the majority of those who so describe themselves, the special feature of the Bráhman caste is its very extensive system of sub-division into endogamous groups. There are over two hundred such groups, each of which is again sub-divided into sections the members of which must marry outside their limits.

The origin of many of these endogamous divisions is believed to have been political. Geographical names, such as Agarval, Khedaval and Sihori, of which there are many, are evidence in support of this assumption. The connecting link between the numerous divisions is that of a common social predominance, combined with the right to perform certain ceremonies.

Vánis, numbering 975,000, are traders. The common bond is one of occupation. Ethnically they consist of groups of widely divergent origin. The endogamous sub-divisions are almost as numerous as in the case of the Bráhmans. Ordinarily the Váni claims to rank as a Vaishya of Manu's fourfold classification scheme, and wears the sacred thread.

The remaining larger castes and tribes of the Presidency proper may be roughly classified as follows:—

Wild or semi-civilized tribes—Kolis, Bhils, Berads, Várlis, Thákurs, Vanjáris and Ahirs.

Shepherds and herdsmen.—Dhangars, Kurubas and Bharvads.

Low caste and menials.—Dheds, Holias and Mahárs, Mochis and Chámbhárs, Mángs.

Artisans.—Lohárs, Sutárs, Darjis, Sonárs, Kumbhárs, Bhandháris, Mális, Hajáms and Nhávis.

These, with a few additional cultivating castes of the status of the Marátha Kunbi, *e.g.*, Agris, Kunbis and Rabáris, make up the greater portion (85 per cent.) of the population of the Presidency proper. Details of the strength of the remaining castes are to be found in the Census Tables of 1901.

In a decennial report on the condition of the Presidency it would be of interest to draw comparisons between the caste distribution of the population at the end of the present and of previous decades with the object of throwing light on the future of social life in the Presidency. We would know whether there is any marked tendency to break down the barriers between caste and caste by a gradual process of amalgamation commencing amongst those of equal social standing; or again, whether any castes show a remarkable increase not to be explained by natural causes. The influence of foreign religions such as Islám and Christianity on caste formation is worth tracing; and special enquiry seems desirable into the results of the removal of the controlling power over the settlement of caste questions which was claimed and exercised by the rulers of India before the days of the British. The attitude of non-interference adopted by the British Executive Administration in matters of caste precedence, custom and privilege, is possibly undermining the whole structure of the caste system.

The Census Report of 1901 contains the comparative returns of certain well defined caste groups for three decades, the castes selected being those which have probably suffered least from changes in the system of classification. In the opinion of the Provincial Superintendent, however, the results of the comparison must be received with great caution. Owing to changes in the basis of classification it happens that more light on the questions enumerated above is to be

obtained from the miscellaneous items of information collected in the progress of a census, than from the collocation of statistics given in the Tables dealing with Caste and Tribe. Among such gleanings we find evidence of Goldsmiths and Lingáyats asserting their claims to be classed as Bráhmans, the Halepaiks, or ex-mercenaries of Tipu Sultan, resident in Kánara, evolving a new caste of Námdár Paiks with Kshatriya precedence, Sikhs and Lingáyats claiming to be Hindus, and reverting to the fourfold classification of Manu, while recently converted Hindu castes of lowly origin produce Sayads and Sheikhs of the true Arab stock.

Many decades and much patient enquiry is necessary before the full bearing of such tendencies on caste evolution in the Presidency can be accurately gauged. There is little doubt that the predominant position of a race entirely free from caste restrictions in the narrow sense that they bear in the East is a powerful solvent of caste barriers and prejudices, and that in time a very much deeper revolution is probable for that reason than has already occurred in Sind owing to the example of the Musalmán Conquerors.

For the present no statistical expression can be safely given to the working of such influences, and it is only possible to note that the present basis of the Hindu social structure is in a condition of unstable equilibrium.

The Province of Sind which since an early period of its history has been under the sway of invading Musalmán tribes contains a population bearing little affinity to that of the remaining portion of the Presidency. Here the tribal units occupy the leading place while castes are relegated to a comparatively subordinate position.

The Musalmán tribes of the Province consist of ten main groups :

Arab.	Makráni.
Afghán or Pathán.	Moghal.
Baluch.	Sindhi.
Brahui.	Sheikh.
Jat.	Menial and slave tribes.

In the census of 1901 an attempt was made to ascertain the numerical strength of the most important sub-divisions of these groups, adopting as a basis of classification the scheme contained in Khán Bahádur Sadik Ali's treatise "The Musalmán Races found in Sind, Baluchistán and Afghánistán". The attempt was only partially successful owing to the tendency of members of such tribal sub-divisions only to return the name of the sub-division when it is one of admitted local importance. In cases where the number of unspecified was very high, the record of sub-divisional strength was omitted. In the case of the Baluch tribes the record of sub-divisions appears to have been successfully accomplished. The Baluch number 542,000, divided into sixteen important tribes. The Rind with their offshoots, the Dombkhi, Khosa Jamali, Jakrani, Lighari, include 270,000. The Chandias are 75,000. The Burdis 68,000. The border tribes, Mari and Bugti, return 37,000. Among the former are the Talpurs, historically of interest as former rulers of Sind subsequent to the fall of the Kalhora dynasty.

Arabs number 261,000, of whom 130,000 describe themselves as Sayads. The term Sayad, strictly interpreted, means Lord or Chief, and is applicable to the descendants of the Prophet's daughter Bibi Fatima. Some caution, however, is necessary in accepting the returns of Sayads, the title being popular among Musalmáns who are certainly not of Arab origin, and thus not, strictly speaking, entitled to use it. A similar error may result from classing as Arabs Sheikhs who are ordinarily nothing more than converts to Islám, whereas a Sheikh should properly signify an Arab or descendant of the Prophet's relations. Sheikhs, who number 967,000, have therefore to be kept distinct from the Arabs. The Kalhora tribe, which preceded the Talpurs as rulers of Sind, numbers 23,000. The Samo and Samro divisions of the Sindhi tribes controlled the fortunes of the province for seven hundred years previous to the middle of the sixteenth century. According to the recent census these tribes are now represented by 124,000 Samros and 794,000 Samos. There are 48,000 Brahuis, 27,000 Moghals, and 170,000 Patháns.

The caste organization in Sind has undergone considerable modification owing to contact with the alien and dominant social system of the Musalmán tribes referred to above. Bráhmans number 14,000 or ·4 per cent. of the population compared with 4·7 per cent. in the rest of the Presidency. They are a degraded and illiterate caste. With their descent from the commanding position that they occupied under a Hindu régime, their influence on subordinate castes has diminished until, in place of a general tendency on the part of the latter to imitate their social system and religious customs, even to the extent of eventually claiming the title of Bráhman for themselves, it will be found that the premier caste in Sind, the Lohánás, wear the beard of the Musalmán Conqueror, and permit themselves the luxury of animal food provided that it has been slain after the orthodox fashion of Islám.

The chief Sind castes are :

(Numbering over 4,000.)

Bhil.	Mazbi Sikh.
Bráhman.	Odd.
Chárun.	Rájput.
Dhed or Mahár.	Shikári.
Khitri.	Sonár.
Koli.	Vani.
Kurmi.	

LANGUAGES.

The languages of the Bombay Presidency are distributed as follows:—

In the North, Sindhi is the mother tongue of all save a small minority, who for the most part speak either Márwári, Baluchi, or Gujaráti. South of Sind, Cutchi or Káchhi, now recognized as a form of Gujaráti, is spoken in Cutch. Gujaráti and Hindustáni are the principal languages in the five districts of Gujarát, the former merging into the dialects of primitive races where the Province approaches the hills or the borders of Rajputána. Thána and the Central Division are the home of Maráthi, different forms of which are spoken above and below the Ghâts. In the wilder parts of Khándesh the hill tribes express themselves in dialects that resemble either Gujaráti or Maráthi according to their distance from places where these languages are in use. The Southern Division is divided between Kánarese and Maráthi, the former slightly ahead of the latter numerically. Maráthi is most common on the coast. Kánarese extends as far north as the southern part of the Sholápur District and is spoken by an appreciable number in the south of Sátára. The Feudatory States resemble the adjacent British districts. Arabic and Somáli are the chief languages in Aden and Perim.

The Linguistic Survey of India has now advanced sufficiently to enable the languages and dialects of the Presidency to be classified on a scientific basis. It is probable that the completion of the Survey will lead to the elimination of many dialects entered in the provisional lists framed in the course of the Survey. Meanwhile the Census Report for 1901 gives the numerical results of this classification. The position of the four main languages (including kindred dialects) of the Presidency is clearly shown by the following figures of the number in 10,000 of the population speaking each one:

Maráthi ...	4,060	Kánarese ...	1,216
Gujaráti ...	2,805	Sindhi... ...	1,153

Thus over 90 per cent. of the population use a language or dialect included in these four. The only other languages of any importance are Western Hindi, Rájasthâni, Bhil, Telugu and Baluchi, of which all but Hindi and Bhil are the languages of immigrants, such as merchants and bankers from Márwár, or cultivators and landowners from Baluchistán. Western Hindi for the most part covers the tongue affected by the Musalmán population outside Sind, and is more commonly known as Hindustáni.

Tributary States.

In the following review of the administration of the Native States under the Political supervision of the Government of Bombay, the States are arranged in groups according to their geographical position. The North Gujarát States forming the most important group lie mostly to the north of the Narbada and comprise an area more than twice as large as that of all the remaining States. The South Gujarát States lie to the south of the Tápti. The Marátha States fall into four groups. The North and South Konkan groups lie below the Ghâts to the north and south of Bombay, respectively. The Deccan and Southern Marátha Country States are situated in the southern and eastern portion of the Dakhan plateau. The Province of Sind contains one State. The Settlement at Aden, including Perim, directly administered by the Government of Bombay, is also included in this review.

The following statement shows the area, the population according to the census of 1901 and the revenue of the Agencies referred to:—

Name.	Area in square miles.	Population according to the Census of 1901.	Gross Revenue.
			Rs.
GROUP 1: NORTH GUJARÁT—			
1. Cutch	7,616	488,022	18,94,984
2. Káthiáwár Agency	20,882	2,329,196	1,59,62,900
3. Pálanpur Agency	8,000	467,271	9,81,902
4. Mahi Kántha Agency	3,528	361,545	9,02,246
5. Rewa Kántha do.	4,980	479,065	15,00,480
6. Cambay	350	75,225	4,07,829
GROUP 2: SOUTH GUJARÁT—			
1. Dharampor	1,051	161,342	8,91,210
2. Bánsda			
3. Sachín			
GROUP 3: NORTH KONKAN, NÁSIK AND KHÁNDESH—			
1. Khándesh Political Agency	1,623	33,272	77,013
2. Surgána	360	11,532	30,642
3. Jawhár	310	47,538	1,57,187
GROUP 4: SOUTH KONKAN AND DHÁRWÁR—			
1. Janjira	324	85,414	5,13,655
2. Sávantvádi	926	217,732	4,30,558
3. Savanúr	70	18,446	1,01,406

Name.	Area in square miles.	Population according to the Census of 1901.	Gross Revenue.
			Rs.
GROUP 5: DECCAN—SÁTÁRA JÁGHIRS—			
Akalkot			
Bhor			
Aundh	3,812	397,640	15,97,360
Phaltan			
Jath			
Daphlápur			
GROUP 6: SOUTHERN MARÁTHA COUNTRY STATES—			
1. Kolháp ur	2,855	910,011	46,61,925
2. Other States	3,022	626,084	39,68,352
GROUP 7: SIND—			
Khairpur	6,050	199,313	13,57,124
GROUP 8: ADEN	75	43,974	37,25,915
Grand Total ...	65,836	6,952,622	3,91,63,188

I.—NORTH GUARAT.

1.—CUTCH.

Ruling Chief—His Highness Maha Rája Dhiraj Mirza Maha Ráo Shri Sir Khengarji Savai Bahádur, G.C.I.E.; *Caste*—Jadeja Rajput, Hindu; *Age*—35¾; Educated privately at Bhúj; *Has male issue.*

Area—7,616 square miles (exclusive of the Runn); *Population, 1901*—488,022. *Tribute to the British Government*—Sikka Rs. 2,00,000 for the maintenance of a British subsidiary force; *Gross Revenue*, 1901-1902—Rs. 18,94,984. *Military Force*—826. *Principal Articles of Production*—Wheat, bájri and other grains of inferior quality. *Manufactures*—Cotton and silver articles, coarse cotton cloth, silk stuff, alum and saltpetre.

General. 1. The peace of the frontier remained undisturbed throughout the year.

Season and Crops. 2. The total rainfall for the State averaged 3 inches 39 cents against 14 inches 82 cents for 1900-1901. Relief works were organised, the daily number of persons employed on them ranging from 120 to 1,434. The total cost on these works amounted to koris 66,862. Locusts appeared in some places, but did no appreciable damage. The Bombay Relief Committee distributed Rs. 3,755 in charitable relief.

Police. 3. The Police force remained at the same figure as in the last year: 254 mounted and 572 foot, besides 102 extra hands employed on plague duty. The cost of the ordinary Police amounted to Rs. 1,50,936 against Rs. 1,39,349 in 1900-1901. The ratio of crime to general population was 2·08 per mille. The percentage of accused convicted was 89 per cent. Serious crime showed a slight increase, murders and robberies numbering 13 and 47 against 7 and 47 in the previous year. The value of property stolen amounted to Rs. 1,04,029 against Rs. 55,992 in 1900-1901. The percentage of recoveries declined from 61 to 51.

Criminal Justice. 4. The 45 Criminal Courts decided 2,092 offences affecting 3,546 persons, of whom 54 per cent. were convicted. In the previous year 2,340 offences involving 4,372 were disposed of with a percentage of convictions amounting to 55. Appeals declined from 59 to 37.

Extradition. 5. The Cutch Darbár surrendered 17 accused for trial by other States, while 31 persons were extradited for trial by the State.

Prisons. 6. There were 12 prisons in which 2,146 persons were confined against 2,843 last year. The cost amounted to Rs. 24,538 against Rs. 34,253 in 1900-1901.

Civil Justice. 7. The 51 Civil Courts of the Province disposed of 3,212 cases out of a total of 3,491 on their files. Appeals for disposal numbered 658, out of which 344 were decided. In 173 of these the decisions of the lower Courts were confirmed.

Registration. 8. There were 2,432 documents registered against 2,194 in the previous year. The fees realised by the Department improved slightly to Rs. 11,230.

Municipalities. 9. The number of Municipalities remained unchanged at 7. Their aggregate income and expenditure were Rs. 39,384 and Rs. 38,148, respectively, as against Rs. 37,008 and Rs. 42,300 in 1900-1901.

Trade. 10. Imports declined from Rs. 1,54,09,692 to Rs. 97,82,020 and exports from Rs. 13,26,722 to Rs. 9,07,301. The customs revenue showed a decrease of Rs. 2,04,060. These results were due to the unfavourable character of the season. The cotton ginning and pressing factories were affected by the failure of the cotton crop.

Public Works. 11. The outlay on Public works amounted to Rs. 2,19,381 against Rs. 1,72,582 in the preceding year. In this sum is included an item of Rs. 1,11,939 spent in the Anjár-Bhúj and Tuna Railway. Rs. 18,682 were spent on irrigation works.

Railways. 12. The surveying of the Tuna Anjár-Bhúj Railway was completed at a cost of koris 7,176.

TRIBUTARY STATES. *Cutch and Káthiáwár.*

Finance.

13. The year opened with a balance of Rs. 24,38,542 and closed with one of Rs. 25,11,910. The revenue decreased from Rs. 19,59,324 to Rs. 18.94,984. The Darbár advanced a sum of Rs. 37,581 to Jághirdárs. Taccávi advances amounted to Rs. 28,348.

Agriculture.

14. One hundred and eighteen new wells were sunk and 113 old wells repaired. The State maintains 47 grass preserves, which realised an income of Rs. 2,473.

Survey.

15. The survey establishment of the State measured 15,442 acres by cross-staff and 10 miles by theodolite in 10 villages.

Vital Statistics.

16. Births and deaths numbered 6,433 and 10,208, respectively, against 7,300 and 20,433 in the preceding year. The decrease in the mortality is due to the absence of cholera. Plague attacks numbered 3,309 and deaths 2,675.

Medical Relief.

17. At the 11 hospitals and dispensaries in the State, there were treated 88,881 patients at a total cost of Rs. 40,798. The Lunatic Asylum contained 6 inmates against 12 last year.

Vaccination.

18. Vaccinations numbered 12,765 against 13,317 in 1900-1901. The cost of the department fell to Rs. 7,102.

Education.

19. The number of pupils in the 127 schools under the State was 5,718 against 6,067 in the preceding year. The 112 private indigenous schools had an aggregate attendance of 4,155 pupils. The expenditure on education rose from Rs. 63,962 to Rs. 61,275. The Darbár awarded 107 scholarships, of which 66 were assigned to female students. The number of pupils at the Bhúj School of Art was 153.

Miscellaneous.

20. The State maintained 10 stallions which covered 84 mares.

The Infanticide Rules continued in force. Breaches of the rules numbered 134 against 85 in 1900-1901. The number of Girásia girls married during the year was 151 against 73 in 1900-1901.

2.—KA'THIA'WA'R.

Area—20,882 square miles; *Population* (1901)—2,329,196; *Gross Revenue* (1901-1902)—Rs. 1,59,62,900. *Tribute to British Government and His Highness the Gáekwár of Baroda*—Rs. 6,05,657. *Military Force*—6,050. *Principal Articles of Production*—Grain, cotton, stone, and akik pebbles, &c. *Manufactures*—Silk cloth, gold and silver lace, carpets, copper and brass-ware, silk cloth, &c.

General.

1. There was no change in the constitution of the States.

Principal Events.

2. Their Excellencies Lord and Lady Northcote visited Rájkot, Morvi, Gondal, Junágad, Bhávnagar and Pálitána in November and December 1901. At Rájkot His Excellency held a Darbár in the Connaught Hall and presented prizes at the Rájkumár College. At Morvi His Excellency unveiled the statue of Lord Reay, late Governor of Bombay. A Camp was opened by Government at Porbandar in December for the pilgrims proceeding to the Hedjaz. 1,676 persons passed through the Camp, which was closed in February.

The rainfall for the province averaged 8 inches 78 cents. The Jhálávád, Sorath and Hálár Ránts were the most affected by the insufficiency. The average crop was about 5 annas in the rupee. Cotton failed almost entirely. A good deal of damage was caused by locusts and rats.

Police and Criminal Justice.

3. The total strength of the Police decreased from 7,564 to 7,453. The cost of maintenance amounted to Rs. 11,04,181. The percentage of convictions to arrest was 73 in the States and 69 in the Agency. The States Police recovered 61 per cent. of the property stolen, while the percentage for the Agency was 42. Serious crime declined sensibly from 1,874 offences to 1,312, dacoities numbering 8 against 19 in the previous year. The Agency Courts tried 2,631 persons, of whom 1,556 were convicted. The Courts of Jurisdictional States had before them 23,372 persons, of whom 13,029 were convicted. Forty-three Criminal appeals were decided during the year. Sessions cases numbered 49, of which 5 were murder cases.

Civil Justice.

4. Civil litigation increased materially during the year. In the Agency Courts 1,986 suits affecting property to the value of Rs. 5,28,048 were filed against 1,274 cases of the value of Rs. 4,57,706 presented in 1900-1901. The Courts of Jurisdictional States disposed of 26,035 Civil cases against a total of 15,184 in the preceding year. 1,936 applications were made for the execution of decrees, of which 563 remained undisposed of at the close of the year. 70 Civil and 80 Political appeals were decided by the Agency Courts.

Registration.

5. The number of documents registered declined from 775 to 352, and the value of the property affected by them aggregated Rs. 5,63,646 against the previous year's total of Rs. 8,48,624.

Trade.

6. Imports declined considerably from Rs. 4,26,80,527 to Rs. 2,28,38,104, rice and grain showing material decreases. Exports on the other hand, chiefly of cotton and grain, improved from Rs. 65,30,833 to Rs. 82,19,746.

Railways.

7. The mileage open in the Province remained the same, *viz.*, 581. The gross earnings fell to Rs. 22,54,939, while the working expenses increased slightly to Rs. 13,18,899. The main decline occurred in goods traffic, imports of food stuffs having declined considerably owing to more favourable season conditions. The Morvi Railway paid the highest rate of dividend, 4·99 per cent., while the Dhrángadhra Railway only earned 2 per cent.

8. Exclusive of famine works, the Native States spent Rs. 16,49,228 on Public Works. In the Agency a sum of Rs. 1,09,882 was spent by the Agency Engineer. TRIBUTARY STATES. *Kathiawár and Pálanpur.*

9. The total demand on account of tribute, including outstandings, amounted to Rs. 13,89,429 : of this a sum of Rs. 10,23,365 was recovered. Public Works. Tribute.

10. The receipts and expenditure of the Consolidated Funds amounted to Rs. 2,44,066 and Rs. 2,11,135, respectively, against Rs. 1,81,465 and Rs. 1,78,920 in the previous year. Local Funds.

11. The public health was satisfactory. There was no epidemic. Plague, as usual, affected only small areas on the sea-coast. The number of deaths from plague reached 1,265. Public Health.

12. The total number of hospitals and dispensaries increased from 114 to 117, of which 21 are under the supervision of the Agency Surgeon. 955,099 persons were treated in these institutions at a cost of Rs. 2,94,307. At the Rasulkhanji Hospital for Women, which is under the charge of a lady physician, 3,625 patients were treated at a cost of Rs. 14,735. The total number of primary and secondary vaccinations performed during the year amounted to 37,825, a decrease of 13,963 on the previous year's figures. Medical Institutions.

13. Including the Rájkumár College, the Wadhwán Tálukdári Girásia School and the Gondal Girásia College, the educational institutions in the Province numbered 1,230, with 83,088 scholars. The total expenditure on Public Instruction amounted to Rs. 7,79,865. Education.

14. The number of paddocks remained the same, *viz.*, nine. The number of stallions stationed in these paddocks totalled 54, and the number of mares served by them 894. His Excellency Lord Northcote visited the paddock at Vánkáner. His Excellency the Viceroy presented the Thákor of Pálitána with a thoroughbred English stallion which, however, died within a short time of its arrival. Horse-breeding.

3.—PA'LANPUR AGENCY.

Ruling Chiefs.	*Residence.*	*Caste.*	*Age.*	*Where educated.*	*Heir.*
His Highness Sir Sher Mahomad Khán, G.C.I.E.	Pálanpur ...	Pathán Mahomadan.	50	Privately at Pálanpur.	Has male heir.
His Highness Mahomad Sher Khán Bábi.	Rádhanpur ...	Do. ...	16	Rájkumár College, Rájkot.	Has no male heir.

Area—8,000 square miles ; *Population* (1901)—4,67,271 ; *Gross Revenue* (1901-1902)—Rs. 9,81,902. *Tribute to His Highness the Gáekwár of Baroda*—Rs. 55,127. *Military Force*—559. *Principal Articles of Production*—Wheat, rice, juvári, bájri, cotton, gram, sarsav and mug. *Manufactures*—Nil.

1. The Agency comprises the two First Class States of Pálanpur and Rádhanpur, the Third Class State of Tharád, the Fourth Class State of Váo, the jurisdictional tálukas of, Bhorol Várâhi, Tharád and Diodar, and a number of petty tálukas grouped for administration purposes into six Thána Circles, each under a Thándar. Pálanpur and the Kánkrej estate pay tribute to His Highness the Gáikwár of Baroda. General.

2. The peace of the frontier remained practically undisturbed during the year except for a few disturbances, connected with petty cattle thefts, which occurred on the boundaries of the States of Pálanpur and Sirohi, and of Pálanpur and Dánta.

3. Her Highness the Begum Sáhib of Pálanpur died on January 22nd, 1902. Chief Events—Pálanpur.

Rádhanpur continued under British administration, the minor Nawáb being a pupil at the Rájkumár College at Rájkot. Rádhanpur.

Váo was brought under British administration during the year, the mismanagement of the State finances by the Rána necessitating such a step. Váo.

The number of estates under attachment rose from 10 to 13. Two estates were withdrawn from attachment, among them that of Malek Jorawarkhan of Várâhi, who attained his majority during the year. Five new estates were brought under Japti. Attached Estates.

Malek Jorawarkhan was, on April 11th 1902, formally presented with the Kaisar-i-Hind silver medal awarded him in recognition of his services during the famine of 1899-1900.

4. In consequence of the holding off of the later rains, the early prospects which had been entertained of a favourable season were not maintained. Relief works, which had been stopped in August 1901, were re-opened in the middle of October, and remained open throughout the year. The charges on this account were met by loans from Government in the cases of Pálanpur, Tharád and Váo. In the Agency a sum of Rs. 1,40,530 was spent on direct relief and Tagávi advances. Numbers of people are reported to have emigrated to Sind, principally from Rádhanpur, in search of work. As in the previous year, a large percentage of the rural population maintained themselves on grass grains such as "thej" and "muth." Irrigated crops raised with the aid of Tagávi advances were considerably damaged by rats. The price of food-grains remained moderate throughout the year. Season and Crops.

5. The gross revenues of the States of Pálanpur, Rádhanpur and Váo improved materially from Rs. 6,36,979 to Rs. 8,25,542 during the year, but their general financial condition still remained unsatisfactory. A new system of account was introduced in the Rádhanpur State, direct payments from the Treasury having been substituted for payments through the State Banker. Finance.

TRIBUTARY STATES. *Pálanpur and Máhi Kántha.*

Police. 6. The total strength of the permanent Foot and Mounted Police during the year was 4,262, and the total cost amounted to Rs. 2,62,099. An additional force of 100 temporary Police was entertained during the year owing to the disturbed condition of the Thána Circles. The total number of offences reported to the Police during the year was 2,009 against 2,642 in the previous year. The percentage convicted of accused arrested was 67 as against 72 in the previous year. There was a decrease both in the value of property stolen and in the percentage of recoveries, the figures being Rs. 82,301, of which 50 per cent. was recovered, against Rs. 93,365, with a percentage of 54 per cent. in 1900-1901. The Sessions Courts disposed of 42 cases, of which the Political Agent tried 7, the Pálanpur Darbár 8, and the Rádhanpur State Court 7. 145 appeals were disposed of during the year; in 75 the sentence was confirmed.

Prisons. 7. The total number of prisoners in the Agency prisons was 3,312 against 5,875 in 1900-1901, with a daily average of 494·29. The total cost was Rs. 19,509.

Civil Justice. 8. Civil litigation, which had been on the decrease during the three previous years, showed a marked advance during the year under report, the number of cases for disposal rising from 1,329 to 2,289. Of these 1,779 were disposed of. 125 civil appeals were disposed of, leaving a balance of 71 in arrears at the end of the year, of which the bulk (46) was in Rádhanpur.

Public Works. 9. The total expenditure on Public Works during the year was Rs. 57,171, exclusive of famine works, against Rs. 52,335 in the previous year. In Pálanpur a sum of Rs. 20,688 and in Rádhanpur a sum of Rs. 35,939 were expended under this head, chiefly on repairs to existing works.

Opium. 10. There was a still further decline in the quantity of opium issued for sale from the Pálanpur Darbár, the figures for the last two years reading 2,860 lbs., 1,034 lbs., as against 985 for the year under report. 31 chests, as against 47 in the previous year, were imported direct from Málwa and Mewár.

Medical Relief. 11. 42,112 persons received medical relief at the various hospitals and dispensaries in the Agency as compared with 56,421 in 1900-1901. The cost of maintenance amounted to Rs. 27,250 as against Rs. 26,864. The Public Health throughout the Agency was good, there being no epidemic of any kind during the year.

Education. 12. Owing to the partial re-opening of the schools which had been closed in the previous year's famine conditions, the average attendance of boys improved from 1,801 to 2,385 and of girls from 103 to 126. The control of the Rádhanpur schools was handed over to the State.

4.—MAHI KA'NTHA.

Area—3,528 square miles; *Population* (1901)—361,545; *Gross Revenue* (1901-1902)—Rs. 9,02,246; *Tribute to His Highness the Gaikwar of Baroda*—Rs. 30,340; Sixty-two smaller States paying tribute to His Highness the Gaikwar of Baroda, the British Government and the I'dar Darbár—Rs. 1,13,406. *Military Force*—1,095. *Principal Articles of Production*—Wheat, gram, maize, bájri, til, cotton, marble and chalk quarries. *Manufactures*—Cloth dyed and exported to Siam.

General. 1. The Agency comprises 59 States, of which I'dar alone is a First Class State. Thákor Jaswatsinghji of Dahalia, a Fifth Class Tálukdár, was deprived of his jurisdictionary powers because of mal-administration. No other changes occurred in the constitution of the States. There was an increase of 1 in the number of attached estates, the Gábat táluka being taken under management on account of indebtedness.

His Highness Colonel Sir Pratápsingji was installed on the I'dar Gadi in February 1902.

A Border Court was held at Pál in the I'dar State to decide cases in dispute between the Mahi Kántha State on the one hand and Kherwáda and Dungárpur on the other.

Season and Crops. 2. The rainy season opened favourably, but with the holding off of the later rains, the kharif crops did not develope into ear. Locusts and rats did a considerable amount of damage. The outturn of the rabi crops was insignificant. Relief was begun in the cold weather in I'dar, the Thánas and other States following suit in March and April. In I'dar Rs. 51,100 were spent on relief work and Rs. 8,997 in the Thánás. Two loans of Rs. 50,000 were sanctioned by Government for famine relief and urgent administrative charges. In addition a sum of Rs. 86,675, received from the Charitable Fund, was spent on the distribution of bullocks and seeds. The gross revenue of the states and tálukas rose from Rs. 7,75,082 to Rs. 9,02,246, while the expenditure is shown as Rs. 11,86,002, an increase of Rs. 77,971 on last year's figures. Tribute to the amount of Rs. 1,05,214 was recovered, leaving a balance of Rs. 2,55,919 still due.

Police. 3. The total strength of the Police in the Province was 2,036, as compared with 2,079 in the previous year. Of these 283 were Mounted. The cost of the Agency and Darbár Police reached a combined total of Rs. 1,94,062 against Rs. 1,93,094 in 1900-1901. The number of offences reported to the Police declined considerably to 904, while that of violent crimes fell by nearly a half to 173. The value of stolen property reached a total of Rs. 71,589, the lowest figure on record since 1899. The percentage of recoveries increased materially from 56 to 74 in the Agency and from 7 to 26 in the States. The percentage convicted of accused arrested was 54 as compared with 69 in the previous year. The Magistrates dealt with 1,828 persons, of whom 34 per cent. were convicted. In the 42 Sessions cases tried during the year, 113 persons were involved; of these 89 were convicted, death sentence being inflicted in one case, while 4 persons were condemned to transportation for life. The Political Agent disposed of 14 criminal appeals as against 7 in the previous year. In 6 of these appeals, the convictions and sentences were reversed.

4. The number of prisons remained unaltered, *viz.*, 24. In these 1,225 prisoners were confined as against 2,160 in the previous year. The total cost declined to Rs. 18,588, giving an average cost of Rs. 74-0-10, as against Rs. 74-1-9 in 1900-1901. TRIBUTARY STATES. *Mahi Kántha and Rewa Kántha.*

5. The 35 Civil Courts disposed of 1,872 cases out of a total of 2,052 for disposal. Inclusive of the previous year's arrears, 2,007 applications for execution came before the Courts, of which 1,569 were disposed of as compared with 472 in 1900-1901. Appeals on the files of the Appellate Courts totalled 100, including last year's arrears. Of these 46 were decided. Prisons. Civil Justice.

6. The number of documents presented for registration increased slightly to 286; while there was a slight decline of Rs. 12,131 in the value of property affected. The amount of fees realised by the Department improved to Rs. 1,761. Registration.

7. As in the previous year no public works were undertaken, relief works being needed almost everywhere. Public Works.

8. The quantity of opium issued improved slightly to 3,231 lbs. Opium.

9. The opening balance to the credit of the Agency local funds was Rs. 1,53,064: the receipts were Rs. 62,167, and the expenditure Rs. 65,173, leaving a credit balance of Rs. 1,50,058 at the end of the year. Local Funds.

10. There were 17 dispensaries as in the previous year, in which 47,376 patients as compared with 56,056 in 1900-1901 were treated. The total cost fell slightly to Rs. 17,327. The number of births rose from 5,223 to 6,058, while the mortality, which in 1900-1901 had reached the unprecedented total of 97,220, fell to 10,490. Medical Relief and Vital Statistics.

11. The number of vaccinations declined to 4,537 as compared with a total of 15,349 three years ago. Vaccination.

12. There was no change in the number of schools, which remained at 121 with a slightly improved attendance of 6,252. The total cost was Rs. 29,794. The 5 Bhil schools managed by the Missionaries, which had been closed in the previous year, were re-opened and were attended by 2,002 pupils. At the Scott College for Kumárs the number decreased to 26, with a daily average attendance of 19. Education.

5.—REWA KANTHA.

Ruling Chiefs.	*Residence.*	*Caste.*	*Age.*	*Where Educated.*	*Heirs.*
His Highness Mahárája Shri Chhatrasingji.	Rájpipla ...	Gohel Rajput, Hindu.	40	Rájkumár College, Rájkot.	Has male heirs.
Mahárával Shri Fattehsingji.	Chhota Udepur.	Chawán Rajput, Hindu.	18	Do. ...	(Under British management.)
Mahárával Shri Mánsingji.	Báriya... ...	Do. ...	47	Do. ...	Has male heir.
Mahárána Shri Sir Wakhatsingji, K.C.I.E.	Lunávada ...	Solunki Rajput, Hindu.	43	Do. ...	Do.
Naváb Manvar Khánji Bábi.	Bálásinor ...	Mahomedan ...	7	Under British management owing to the minority of the Chiefs.	
Mahárána Shri Jorávarsingji.	Sunth	Powar Rajput, Hindu.	21		

Area—4,980 square miles; *Population* (1901)—479,065; *Gross Revenue* (1901-1902)—Rs. 15,00,480. *Tribute to His Highness the Gáekwár of Baroda and the British Government*—Rs. 66,987 and Rs. 24,383, respectively. *Military Force*—1,352. *Principal Articles of Production*—Rice, juvári, cotton, timber, maize and gram. *Manufactures*—None.

1. The Agency comprises one First Class State, five Second Class States, five States of minor importance and 51 petty Mewás Estates. Three of the five Second Class States, *viz.*, Chhota Udeypur, Bálásinor and Sunth, continued under the administration of the Agency. Of the five minor States, Kadana was handed over to the Thákor on attaining his majority; while Sanjeli came under Agency management on the death of its Chief in December. Among the petty Mewás Estates, Naswádi and Rájpur were handed over to their Thákors, while 13 remained under British management. General.

2. The complete cessation of the monsoon in August, followed by an unprecedented plague of rats, combined to make the season a disastrous one. Kharif crops ranged from 4 to 6 annas, while the rabi outturn was practically *nil*. Relief was begun in December and continued throughout the year. To meet this additional famine expenditure Government advanced a sum of Rs. 5,40,000, of which 4 lákhs were taken up in Rájpipla alone. The total Revenue of the States (Rs. 15,00,480) fell considerably short of the expenditure (Rs. 20,71,198), the outlay on relief works amounting to Rs. 2,48,018. Season and Crops.

3. The total strength of the police was reduced by 20 to 1,415. Of the 1,975 persons sent up for trial, 1,461 or 74 per cent. were convicted. The value of property stolen amounted to Rs. 43,564, of which 25 per cent. was recovered. 2,972 persons were dealt with by the Magistrates, as compared with 5,993 in 1900-1901. Serious offences declined considerably from 240 to 140. The number of Sessions cases declined from 17 to 12. Police and Criminal Justice.

4. The number of jails remained the same. 2,059 prisoners, as against 5,622 in 1900-1901, were confined in them. Prisons.

5. Including an arrears of 1,080 from the previous year, the number of civil suits totalled 3,614, of which 2,885 were disposed of. Civil Justice.

6. With the abolition of one Travelling Dispensary at Lunávada, the number of dispensaries fell to 16. In these 74,362 patients were treated. The cost of these institutions fell from Medical Relief.

TRIBUTARY STATES.

Rewa Kántha, Cambay and South Gujarát.

Education.

Rs. 28,820 to Rs. 26,232. The number of primary vaccinations and re-vaccinations totalled 7,346, a decrease of 2,577 on the preceding year's figures. Plague, which first appeared in the Rájpipla State, spread among other parts of the Agency and was responsible for 540 deaths.

7. There were 175 schools open during the year, a decrease of 9 in the preceding year's number. The number of scholars declined from 7,697 to 7,278. The schools which were closed included the Tálukdári School at Vajiria.

6.—CAMBAY.*

Ruling Chief—His Highness Jafar Ali Khán Sáheb Bahádur; *Caste*, Mogul (Shiah); *Age*—54 years; Educated at Cambay; *Has no male issue.*

Area—350 square miles; *Population* (1901)—75,225; *Gross Revenue* (1901-1902)—Rs. 4,07,829. *Tribute to British Government*—Rs. 21,024. *Military Force*—33. *Principal Articles of Production*—Jowári, bájri, kodra, paddy, wheat, cotton, pulses, oil-seeds and tobacco. *Manufactures*—Cornelian stones, cloths, dhoties, carpets, horn and ivory-work.

Chief events.

1. The State currency was converted into British currency.

Season and Crops.

2. The monsoon was late and irregular. The total rainfall was 22 inches 79 cents against an average of 35 inches. All the crops except bájri suffered severely. Rats and locusts damaged the winter crops. Eleven new wells were sunk and Rs. 7,049 given as Tagávi for purchase of bullocks and seed.

Police.

3. The strength of the Police remained unchanged at 170: its cost increased from Rs. 22,266 to Rs. 23,362. The number of offences reported was 230, of which 44 remained undetected. Of the 291 persons arrested 226 were convicted, giving a percentage of 77·66 as against 84·75 in 1900-1901. The value of stolen property was Rs. 5,518, of which Rs. 3,717 (or 67 per cent.) was recovered, an improvement of 8 per cent. in the previous year's figures.

Criminal Justice.

4. The 5 Criminal Courts disposed of 602 cases involving 914 persons, of whom 525 were convicted. There were eleven appeals, in five of which the sentences were confirmed.

Jails.

5. The number of prisoners admitted into the jail was 180. The cost fell from Rs. 3,554 to Rs. 2,832.

Civil Justice.

6. The four Civil Courts disposed of 2,579 suits out of a total of 2,819. The Sardárs' Court decided all the ten cases on its file. The Revenue Court disposed of 122 possession and 21 rent suits. Applications for execution of decrees totalled 3,532, of which 1,926 were disposed of.

Registration.

7. 728 documents affecting property to the value of Rs. 2,46,482 were presented for registration against 1,075 deeds of a declared value of Rs. 2,91,331. The fees amounted to Rs. 5,913.

Public Works.

8. The total amount expended on public works was Rs. 22,987 against Rs. 43,588 in 1900-1901. The cost of the Cambay Railway amounted to Rs. 7,49,676. The gross earnings for the six months ending December 31st, 1901, were Rs. 12,010.

Finance.

9. The revenue receipts improved from Rs. 2,66,635 to Rs. 4,07,829 and the expenditure rose from Rs. 3,80,706 to Rs. 3,90,515.

Vital Statistics.

10. The total number of births was 2,046 and of deaths 2,863, giving an average per mille of 28 and 38 respectively.

Medical Relief.

11. At the four medical institutions there were treated 32,093 patients as against 33,634 in the previous year. The total cost fell from Rs. 8,558 to Rs. 8,197.

Education.

12. With the closing of three schools the number of educational institutions was 24, attended by 1,788 pupils. The average daily attendance of boys was 1,134 and of girls 112. The cost of the Department amounted to Rs. 16,368 against Rs. 15,918 in the previous year.

II—SOUTH GUJARAT.

Ruling Chiefs.	*Residence.*	*Caste.*	*Age.*	*Where educated.*	*Heirs.*
Navváb Sidi Najab Ali Khán *alias* Ebráhim Khán.	Sachin... ...	Sunni Mahomedan.	17	Rájkumár College, Rajkot.	Has no male heir.
Maha Rával Shri Pratápsingji Gulábsingji.	Bánsda ...	Solunki Rajput, Hindu.	38	Do. ...	Has male heir.
Maháráma Shri Mohandevji Náráyendevji.	Dharampor ...	Sisodia Rajput, Hindu.	39	Do. ...	Do.

Area—1,051 square miles; *Population* (1901)—161,342; *Gross Revenue* (1901-1902)—Rs. 8,91,210. *Tribute to British Government*—Rs. 9,154. *Military Force*—255. *Principal Articles of Production*—Rice, nágli, kodra, juvári, udid, pulses, gram, molasses, sugar-cane, &c. *Manufactures*—Cotton cloth.

General.

1. This group consists of the three States of Dharampur, Bánsda and Sachin, of which the first is the most important. Sachin is in charge of the Assistant Collector, Chorási Division, as Administrator, under the supervision of the Collector and Political Agent, Surat, during the minority of the Chief; the other two are managed by their respective Chiefs.

* The financial figures in this report are in British money, whereas those of the previous years were in Cámbay rupees.

TRIBUTARY STATES.

South Gujarát, Khándesh Political Agency and Surgána.

Season and Crops.

2. The late rains were insufficient and this affected the yield of rice and rabi crops in the Dharampur State. In the Sachin State there was a complete failure of rice, wheat, castor oil, seeds and pulses. In the Bánsda State the outturn was good except in a few villages on the eastern frontier.

Police and Criminal Justice.

3. The total strength of the Police force in the three States increased from 326 to 344 and the cost to Rs. 41,582. The number of offences reported during the year was 427 against 551 in the preceding year. The arrests made by the Police were 687. Convictions were obtained in 471 cases.

Prisons.

4. In all 426 persons were confined in the jails against 534 in the previous year. The total cost amounted to Rs. 4,074 as compared with Rs. 4,292 in 1900-1901.

Civil Justice.

5. The number of suits for disposal was 402, all of which save 12 were decided during the year. The number of appeals heard and disposed of was 5.

Registration.

6. The number of documents registered was 136 representing property worth Rs. 72,957.

Revenue and Finance.

7. Dharampur had a gross revenue of Rs. 4,07,047. The expenditure amounted to Rs. 4,08,743 and included a payment of Rs. 1,67,744 towards the liquidation of debt. The Bánsda revenue was Rs. 2,89,854, showing a decrease of Rs. 2,771. The expenditure amounted to Rs. 2,39,014, or Rs. 71,951 less than in the previous year. Remissions of land revenue were allowed to the extent of Rs. 25,600 in Dharampur and Rs. 882 in Bansda, and sums of Rs. 6,000 and Rs. 11,213 were disbursed as loans to agriculturists in the two States, respectively. The Sachin revenue was Rs. 1,94,309—a decrease of Rs. 11,718. The expenditure amounted to Rs. 1,72,024, or Rs. 2,761 less than in the previous year. Remissions of land revenue allowed amounted to Rs. 111 and grants of Takávi to Rs. 3,095.

Public Works.

8. The total expenditure on public works was Rs. 84,122 against Rs. 84,975 in the previous year.

Vital Statistics.

9. The recorded births and deaths were 3,395 and 6,938 against 2,427 and 8,614. respectively, in 1900-1901. The attendance at the various dispensaries was 26,340 against 27,353. The number of vaccinations performed was 3,054 against 3,852 in the previous year. There were 353 cases of plague in the Sachin State. The other States were free from the disease. The total cost of medical institutions was Rs. 7,584 in Dharampur, Rs. 3,173 in Bánsda and Rs. 4,154 in Sachin.

Education.

10. The number of schools was 58, or 1 less than in the previous year, but the number of pupils was 3,155 as against 2,975. The expenditure on education amounted to Rs. 18,084.

III.—NORTH KONKAN.

1.—THE KHA'NDESH POLITICAL AGENCY.

Area, 1,623 square miles; Population (1901), 33,272; Gross Revenue: Dángs, Rs. 24,988; Mewás Estates, Rs. 52,025.

General.

1. The Agency comprises the tract known as the Dángs and the petty Mewás Estates of Chikhli, Kathi, Raisingpur, Singpur, Nal and Navalpur.

Season.

2. Scarcity prevailed to some extent in the Dángs and in a more marked degree in the Mewás Estates. No regular works were opened, but gratuitous relief was distributed in the Dángs through the agency of the Forest Officers and in the Mewás Estates through Special Circle Inspectors. The Mewás Chieftains contributed a sum of Rs. 2,700 towards relief.

Revenue and Expenditure.

3. The revenue receipts improved both in the Dángs and in the Mewás Estates, the figures being Rs. 24,988 and Rs. 52,025 respectively as against Rs. 24,379 and Rs. 44,271. Expenditure shows an advance of Rs. 16,522 in the Mewás Estates.

Crime.

4. There was a marked increase in crime, due mainly to the detection of offences committed in the previous year. The number of cases under the Penal Code rose from 49 to 68, while there were 76 cases under the A'bkári Act as against 9 in the previous year.

Public Health and Vaccination.

5. There was no epidemic of any kind in either the Dángs or the Mewás Estates. The number of children vaccinated increased in the Agency from 93 to 368.

2.—SURGA'NA.

Ruling Chief—Pratáp Ráo Shankar Ráo Deshmukh; *Residence*—Surgána; *Caste*—Kunbi, Hindu; *Age*—21 years; Educated at the Surgána State School; Has male heir.

Area—360 square miles; *Population* (1901)—11,532; *Gross Revenue* (1901-1902)—Rs. 30,642. *Tribute to British Government*—Nil. *Military Force*—Nil. *Principal Articles of Production*—Rice, nágli and timber. *Manufactures*—Nil.

General.

1. Surgána is a petty State consisting of 61 villages, of which 46 are "khálsa" and 15 "alienated." Prataprao Shankarrao Deshmukh himself, since his installation in December last, manages the State under the supervision of the Collector and Political Agent, Násik.

Season and Crops.

2. The rainfall during the year was insufficient and the average outturn of all crops was only 8 annas, the later rains being scanty.

TRIBUTARY STATES.

Jawhár and Janjira.

Criminal Justice.

3. There were 40 cases during the year under different Acts. The number of persons accused in all these was 56, of whom 51 were convicted and 5 discharged.

Revenue and Expenditure.

4. The gross receipts of the State amounted to Rs. 30,642 during the year as against Rs. 46,961 in the previous year, showing a net decrease of Rs. 16,318. The gross expenditure was Rs. 33,940 as against Rs. 52,111, showing a net decrease of Rs. 18,170. The income of the State is chiefly derived from land revenue, ábkári, tolls and forests.

Education.

5. There is one State school at Surgána attended by 37 boys.

Trade.

6. The only trade of any importance is in forest produce which is exported to Gujarát.

3.—JAWHA'R.

Ruling Chief—Patang Shah, Rája of Jawhár; *Caste*—Koli, Hindu; *Age*—48 years; Educated at Poona High School; *Has two male heirs.*

Area—310 square miles; *Population* (1901)—47,538; *Gross Revenue* (1901-1902)—Rs. 1,57,187. *Tribute to British Government*—Nil. *Military Force*—60. *Principal Articles of Production*—Rice, nágli and timber. *Manufactures*—Nil.

Season and Crops.

1. The rainfall was below the average and unseasonable. The outturn of paddy, nágli and túr was 7 annas. Wages were stationary and prices of food-grains slightly above the normal. Relief in the shape of grain was continued on a small scale.

Police.

2. The strength of the Police was 60, as in the previous year. Its cost was Rs. 5,560. 62 persons were arrested, of whom 53 were sent for trial and 48 convicted. The value of stolen property amounted to Rs. 437, of which 21 per cent., as against 64 in the previous year, was recovered. The Criminal Courts tried 285 persons, of whom they convicted 113. Nine persons were extradited for trial in British Territory and three for trial by the State.

Jail.

3. There were 82 prisoners in the State jail. The cost of the Department amounted to Rs. 1,271.

Civil Justice.

4. With an arrears of 15, there were for disposal 92 cases before the Civil Courts, of which 71 were decided. Out of 7 appeals 4 were decided.

Registration.

5. 131 documents of an aggregate value of Rs. 26,925 were registered. For 1900-1901 the figures were 199 documents of a value of Rs. 59,894. Fees realised a total of Rs. 170.

Revenue and Finance.

6. Land revenue collections amounted to Rs. 64,072, against Rs. 64,515 in the previous year. Forest receipts fell considerably from Rs. 16,154 to Rs. 4,095. The total receipts amounted to Rs. 1,57,187 and expenditure to Rs. 1,71,619. The closing balance was Rs. 21,363.

Public Works.

7. The outlay on public works amounted to Rs. 13,825, including Rs. 7,374 spent on communications.

Vital Statistics.

8. The public health was good. The birth-rate increased from 18 to 31 per mille, while the death-rate decreased from 65 to 14.

Medical Relief.

9. The number of patients treated at the State dispensary was 2,502 and the cost Rs. 3,834. Primary and secondary vaccinations reached a total of 1,936.

Education.

10. The number of primary schools was 6, which were attended by 288 pupils.

IV.—SOUTHERN KONKAN.

1.—JANJIRA.

Ruling Chief—Navab Sidi Sir Ahmed Khan, K.C.I.E.; *Caste*—Sidi Sujat Khan, Suni Mahomadan; *Age*—40 years; Educated at the Rájkumár College, Rájkot; *Has no male issue.*

Area—324 square miles; *Population* (1901)—85,414; *Gross Revenue* (1901-1902)—Rs. 5,13,655. *Tribute to British Government*—Nil. *Military Force*—74. *Principal Articles of Production*—Rice, nágli, wari, teel, harik, cocoanuts, betel-nuts, fire-wood, timber, myrobolans, hemp and fish. *Manufactures*—Nil.

Season and Crops.

1. The season was on the whole good, rice and varkas being only slightly affected by the insufficiency of the latter rains. The average outturn of kharif and rabi was 9 annas.

Police.

2. The total strength of the permanent and temporary Police remained as in the preceding year at 153; the cost was Rs. 16,879 against Rs. 18,824 in the previous year. The value of stolen property aggregated Rs. 2,619 against Rs. 834 in the previous year: of this amount 32 per cent. as against 70 per cent. in 1900-1901 was recovered. The Criminal Courts dealt with 238 cases involving 519 persons.

Prison.

3. There is one jail in the State. The daily average number of persons confined in it was 12·8 against 19·1 in the previous year.

Civil Justice.

4. Out of the 602 suits before the two Civil Courts of Original Jurisdiction 567 suits involving property to the value of Rs. 55,150 were disposed of. 1,044 applications were made for execution of decrees, of which 971 were disposed of during the year.

Registration.

5. There was an increase both in the number of documents registered and in the aggregate value of the property affected by them, the figures being 751 and Rs. 2,35,678 against 509 and Rs. 1,74,541 in the previous year. The net profits of the department rose from Rs. 1,257 to Rs. 1,685.

TRIBUTARY STATES.

Janjira and Sávantvádi.

6. The total revenue from forests declined from Rs. 51,446 to Rs. 48,961, and the expenditure from Rs. 9,128 to Rs. 8,737. Free grants of timber were made to the value of Rs. 613. Forests.

7. Imports declined to Rs. 3,85,411, while exports increased slightly to Rs. 3,43,910. Trade.

8. The outlay on public works amounted to Rs. 72,949 against Rs. 89,699 spent under this head in the previous year. The programme for the year included the completion of the Mazgám-Kesoli road and the diverting of the Nawadar and Karmare water springs with a view to improving the water-supply of the town of Murud. Public Works.

9. Decreases occurred both in the receipts and expenditure of the State, the former totalling Rs. 5,52,390 against Rs. 5,82,442 in 1900-1901, while the latter amounted to Rs. 5,05,588 against Rs. 5,77,884. The closing balance was increased by Rs. 6,144 to Rs. 6,35,287. Finance.

10. Realisations under this head amounted to Rs. 61,795, an increase of nearly Rs. 200 in last year's figures. The expenditure rose slightly to Rs. 16,951. A'bkári.

11. The number of births registered improved to 2,968, while the mortality decreased from 4,287 to 2,641. 2,236 children were vaccinated during the year. Vital Statistics and Medical Relief.

12. The number of State schools increased from 58 to 59; but the attendance fell to 2,960. The cost of the Department was practically the same as in the previous year, *viz.*, Rs. 22,484. Education.

2.—SA'VANTVA'DI.

Ruling Chief—Shri Rám Sávant Bhosle Sir Desái; *Residence*—Sávantvádi; *Caste*—Marátha, Hindu; *Age*—31 years; Educated at the Belgaum High School and the Rájkumár College, Rájkot. Has male heir.

Area—926 square miles; *Population* (1901)—217,732; *Gross Revenue* (1901-1902)—Rs. 4,30,558. *Tribute to British Government*—Nil. *Military Force*—331. *Principal Articles of Production*—Rice, náchni, cocoanuts and betelnuts. *Manufactures*—Ornamental furniture in painted lacquer works; inlaid cocoanuts, fancy articles kus kus, fancy articles, embroidery and horn-work, toys, &c.

1. The season was very favourable to rice and *náchni*, the former yielding a 12-anna and the latter a 10-anna crop. Some damage was done by locusts to garden and *warkas* produce in a few of the villages near the Ghats.

2. The Sávantvádi Local Corps consisted of 331 men of all ranks under a European Officer. Its cost amounted to Rs. 46,983 against Rs. 48,676 in 1900-1901. Military.

3. The strength of the Police force at the end of 1901-1902 was 141, of whom 99 belonged to the permanent force; the rest were detailed temporarily from the Local Corps. The cost of the department amounted to Rs. 12,821 against Rs. 13,160. 326 persons were sent up for trial by the police; of these 143 or 43·8 per cent. were convicted. Out of Rs. 21,215 worth of property stolen during the year, Rs. 4,583 or 21 per cent. was recovered. This falling off in the percentage of recovery was due to a serious dacoity, which occurred during the year and which was not detected till after the close of the year. Of the 943 persons brought to trial, 334 or 35 per cent. were convicted. The sentence of death passed by the Political Agent in a murder case was confirmed by Government on appeal, but was subsequently commuted to one of transportation for life as an act of grace on the occasion of the marriage of the Sar Desai. There were three appellate Courts at work; they had between them in all 64 appeals for disposal, of which all but one were decided. Police and Criminal Justice.

4. During the year 146 prisoners were confined in the jail. Their daily average was 40 and the average cost per prisoner per annum was Rs. 61-13-0 against Rs. 71 in the year before. Prisons.

5. There were 2,634 suits for disposal, of which 1,952 were decided. In the previous year 2,415 suits were decided out of the total of 2,933. Of the 4,244 applications for execution of decrees, 3,276 were disposed of; the corresponding figures for the previous year being 3,935 and 3,177. The number of first appeals was 226, of which 169 were decided. Civil Justice.

6. The number of documents registered fell from 2,290 to 2,244, but the value of the property involved therein rose from Rs. 2,71,985 to Rs. 3,17,474. The fee realizations amounted to Rs. 9,682 against Rs. 8,678. Registration.

7. The area under forest conservancy remained almost unchanged, *viz.*, 34,859 acres. The receipts of the department amounted to Rs. 21,623 against Rs. 18,822 and the expenditure to Rs. 9,495 against Rs. 10,874 in 1900-1901. Forest.

8. The outlay on public works amounted to Rs. 69,186 as against Rs. 53,431. Public works.

9. The receipts which amounted to Rs. 4,30,558, show an improvement to the extent of Rs. 22,770 owing to good harvest and cheaper prices of food grains, while the expenditure fell from Rs. 4,17,903 to Rs. 4,11,050. The closing balance was Rs. 4,07,824. The income from local funds amounted to Rs. 46,275 and the expenditure to Rs. 45,057. Revenue and Finance.

10. In the seven medical State institutions 475 in-door and 14,825 out-door patients were treated as against 636 and 13,669 respectively in 1900-1901. The recorded births increased from 5,667 to 5,755, while the deaths decreased from 5,265 to 4,545. The number of vaccine operations was less than in the preceding year, being 5,005 against 7,493. The cost of the Medical Department amounted to Rs. 18,838 against Rs. 22,001. Vital statistics and medical services.

11. There were 167 schools attended by 6,401 scholars. The receipts of this department amounted to Rs. 25,889 and the expenditure to Rs. 26,033 against Rs. 26,082 and Rs. 25,447 respectively in 1900-1901. Education.

TRIBUTARY STATES.

3.—SAVANU'R.

Savanur and Sátára Jághirs.

Ruling Chief—Abdul Majid Khán Dilar Jang Bahádur; *Residence*—Dhárwár; *Caste*—Pathan, Mahomedan; *Age*—11 years (minor); being educated at the Rájkumár College, Rájkot; Has no male heir.

Area—70 square miles; *Population* (1901)—18,446; *Gross Revenue*—Rs. 1,01,406; *Tribute to British Government*—Nil. *Military Force*—46. *Principal Articles of Production*—Rice, cotton, juvári, wheat, betel-leaf, cocoanuts. *Manufactures*—Sadis, dhotars, &c.

General.

1. The State was under the management of the Collector of Dhárwár as Political Agent, with his Senior Assistant as Assistant Political Agent, the Nawáb being a minor.

Season and Crop.

2. The rainfall during the year was timely and also equal to the average, although unequal in distribution. The outturn of all crops was higher than in the preceding year. The prices of food-grains were a little lower during the year. The season was on the whole satisfactory.

Revenue and Finance.

3. The opening balance was Rs. 3,15,060, of which Rs. 2,64,600 are invested in Government Securities. The revenue amounted to Rs. 1,01,406 and the expenditure to Rs. 96,693, the closing balance being Rs. 3,19,772. The expenditure on the public works was Rs. 17,987 against Rs. 13,719 in the preceding year.

Police, Criminal Justice and Prison.

4. The permanent staff of the Police consists of 46 men—43 foot and 3 mounted—the same as in the previous year. The total number of offences reported was 40 against 33 in 1900-1901. The number of persons dealt with was 49, of whom 35 were convicted and 14 acquitted or discharged. The value of property stolen was Rs. 665 and that of property recovered Rs. 399, the percentage of recoveries being 60 against 40·9 in the year preceding. Altogether 38 prisoners were confined in the Savanúr Jail.

Civil Justice.

5. There was one Civil Court of original jurisdiction. Including arrears there were 111 suits for disposal, of which 93 were decided as against 86 out of 117 in the year 1900-1901. Five appeals were heard by the Political Agent, in all of which the orders of the lower Court were confirmed. There were 94 applications for execution of decrees during the year, including 42 remaining at the end of the previous year. Of these, 63 were disposed of during the year and 31 remained outstanding at the end of the year under report. There were 182 documents registered affecting property valued at Rs. 40,379.

Municipality.

6. There is one Municipality at Savanúr. It had an income of Rs. 4,197, including the opening balance of Rs. 427, and an expenditure of Rs. 3,431.

Medical Relief and Vital Statistics.

7. At the Savanúr Dispensary 15,179 out-door patients were treated. There were no in-door patients admitted during the year. There were 528 births and 1,443 deaths registered as against 557 and 987 in 1900-1901. The high mortality was chiefly due to plague. The number of persons vaccinated was 647 against 635.

Education.

8. The number of schools remained the same (12) as in the previous year. A technical teacher has been appointed from September last to teach drawing in the Anglo-Vernacular School, and drawing and carpentry in the Kánarese School No. 1 in the town of Savanúr. The attendance was 597 against 658 in the previous year, and the expenditure under this head was Rs. 5,637 against Rs. 5,085 in the preceding year.

V.—THE DAKHAN.

SA'TA'RA JA'GHI'RS.

Ruling Chiefs.	*Residence.*	*Caste.*	*Age.*	*Where educated.*	*Heirs.*
Meherbán Parashrám Ráo Pandit Pratinidhi.	Aundh ...	Bráhmin, Hindu.	45	Private tuition ...	Has male heir.
Meherbán Mudhoji Ráo Náik Nimbálkar.	Phaltan ...	Kshtreya, Hindu.	64	Do. ...	Do.
Meherbán Shankar Ráoj Chimnáji Pant Sachiv.	Bhor	Bráhmin, Hindu.	48	Do. ...	Do.
Meherbán Fatteh-sing Sayáji Raje Bhosle *alias* Bápu Sáheb.	Akalkot ...	Maratha, Hindu.	7¼	(Minor).	
Meherbán Rám Ráo Aba Sáheb Daphle.	Jath	Do. ...	17	Private tuition at Kolhápur.	Has no male heir.
Ráni Bái Sáheb Daphle.	Daphlápur ...	Do. ...	68	Privately at Mudhol.	Do.

Area—3,812 square miles; *Population* (1901)—397,640; *Gross Revenue* (1901-1902)—Rs. 15,97,360. *Tribute to British Government*—Rs. 35,235. *Military Force*—463. *Principal Articles of Production*—Rice, nágli, sava, juvári, wheat, gram, cotton, bájri, ground-nuts, jagri, sugar-cane, linseed, &c. *Manufactures*—Sádis, coarse or common shelas, cholis and common barnus; kamblis, carpets, brass pots, &c.

General.

1. The Sátára Jághírs comprise the six States of Aundh, Bhor, Phaltan, Akalkot, Jath and Daphlápur. The political control of the Daphlápur and Jath States was transferred from the Political Agent, Southern Mahrátta Country, to the Collector of Bijápur during the year under report. The Chief of Aundh, Shriniwasráo, died on 26th September 1901, and was succeeded by Parashramráo Shriniwasráo, who was installed in his office as Chief on 20th February 1902. Owing to the minority of their Chiefs, Akalkot and Jath were under the control of an Administrator appointed by Government.

TRIBUTARY STATES. *Sátára Jághírs and Kolhápur.*

Season and Crops. 2. The outturn of kharíf and rabi in Akalkot was 10 annas and 14 annas, respectively: in Phaltan the kharíf crop was from 4 to 6 annas. In Aundh and Bhor though the rainfall was not up to the average, there was no scarcity or famine. In Jath and Daphlápur rabi failed entirely and kharíf was far below the normal. Jath spent Rs. 1,35,651 on relief works and Daphlápur Rs. 7,196.

Revenue and Expenditure. 3. The combined revenues of the Jághírs showed a considerable decrease to Rs. 15,97,360. The expenditure amounted to Rs. 15,16,790. Jath and Daphlápur raised loans of Rs. 2,00,000 and Rs. 12,000, respectively.

Police. 4. The Police force consisted of 556 men of all grades. Its cost was Rs. 64,603. The number of offences reported was 840, in connection with which 739 persons were arrested, of whom 75 per cent. were convicted as against 68 in 1900-1901. The value of stolen property was Rs. 16,358, of which Rs. 8,961 were recovered, a percentage of 54·7 against 49 in the previous year.

Criminal Justice. 5. 2,210 persons were dealt with by the Criminal Courts, of whom 1,211 were convicted, a percentage of 55 against 60 in the previous year.

Prisons. 6. There were 8 prisons, in which 634 persons were confined. The cost was Rs. 11,540 (excluding Aundh, for which figures are not available).

Civil Justice. 7. Out of 2,508 suits for disposal, 1,942 were decided against 2,631 in the previous year. Applications for executions of decrees numbered 4,258, of which 3,431 were disposed of.

Registration. 8. 4,882 documents, of the value of Rs. 6,02,643, were registered. The fees of the Department realised Rs. 5,368.

Municipalities. 9. There were 4 Municipalities (Bhor 2, Phaltan and Jath 1 each) with an aggregate income of Rs. 17,612 and an aggregate expenditure of Rs. 16,441.

Forests. 10. There was no change in the area under forests (66,822 acres), the bulk of which is in Jath (35,760 acres). The receipts of the department amounted to Rs. 17,780 and the expenditure to Rs. 12,192.

Public Works. 11. The total outlay on public works amounted to Rs. 1,08,148, exclusive of famine relief works, which, however, were confined to Jath and Daphlápur.

Vital Statistics. 12. Births numbered 12,148 and deaths 9,862. The public health was fairly good. There was no epidemic.

Medical Institutions. 13. In the six medical institutions 50,109 patients were treated at a cost of Rs. 12,518, the number for 1900-1901 being 55,498, and the cost Rs. 11,857.

Education. 14. The number of schools rose from 156 to 161 and the attendance from 5,987 to 6,461. The cost of education was Rs. 36,168.

VI.—SOUTHERN MAHRATTA COUNTRY STATES.

1.—KOLHA'PUR.

Area—2,855 square miles; *Population* (1901)—910,011; *Gross Revenue* (1901-1902)—Rs. 46,61,925; *Tribute to the British Government*—Nil. *Military Force*—958. *Principal Articles of Production*—Rice, jowári, vegetables, sugar-cane, tobacco, cotton, chillies, kasumba, ground-nuts, &c. *Manufactures*—Coarse cotton and woollen-cloths, articles of pottery and hardware.

General. 1. The Principality comprises the State of Kolhápur proper with its nine feudatory States, all of which are self-governed, the Senakhaskhel of Torgal having been invested with administrative powers on February 27th, 1902.

Season and Crops. 2. The rainfall on the whole was sufficient and the crops yielded a good harvest. Water-supply was plentiful. The prices of the staple food-grains fell almost to the normal level.

Military Force. 3. The military establishment of the State consists of an infantry regiment of 532 under a British officer and a native Risala bodyguard of 156 under a native officer. The total cost amounted to Rs. 1,15,172 against Rs. 1,33,992 in the previous year.

Police. 4. The strength of the police force was 841 against 805 in 1900-1901. The cost of entertainment fell to Rs. 83,888. Of the 1,189 persons arrested, 848, representing 71 per cent., were convicted as against a percentage of 84 for 1900-1901. The percentage of recoveries of stolen property fell from 69 to 43. The total number of persons dealt with by the Magistrates was 7,100, of whom 50 per cent. were acquitted. The Sessions Courts disposed of 75 cases affecting 307 prisoners, of whom 192 were convicted. Criminal appeals fell to 218.

Prisons. 5. The number of jails and lock-ups rose from 17 to 18. In these 2,898 prisoners were confined during the year. The total cost amounted to Rs. 43,174.

Civil Justice. 6. The number of Courts increased to 36. Inclusive of last year's balance there were in all 6,284 suits for disposal, of which 4,219 as against 3,365 in 1900-1901 were disposed of. The number of applications for execution of decrees amounted to 6,164, of which 3,198 were decided. Special appeals to His Highness' Court reached a total of 204, of which 37 were disposed of.

Registration. 7. During the year 7,314 deeds involving property to the value of Rs. 22,27,112 were presented for registration; of these, 7,293 were registered as against 6,560 in the previous year. The fees realised Rs. 35,588, and the net profit Rs. 28,738, an increase of Rs. 3,229 over last year's figures.

TRIBUTARY STATES. *Kolhápur and other Southern Marátha States.*

Municipalities.

8. The number of municipalities remained unaltered at 9. The receipts of the head-quarter municipality fell considerably to Rs. 60,197, while its expenditure increased to Rs. 59,260. The combined total of the receipts of the 8 District Municipalities reached an aggregate of Rs. 20,130 against an expenditure of Rs. 18,680. The closing balance of the District Municipalities stood at Rs. 22,922 on March 31st, 1902.

Forests.

9. The areas under reserved and protected forests were 333 and 177 square miles against 229 and 171 in the preceding year. No demarcation work was undertaken, while in two villages only settlement work was completed. The total receipts improved considerably from Rs. 86,380 to Rs. 1,56,919; the expenditure on conservancy amounted to Rs. 96,913 and the establishment charges to Rs. 17,250.

Public Works.

10. The total expenditure on public works was Rs. 2,85,225, of which Rs. 1,32,698 were laid out on original works.

Vital Statistics and Medical Relief.

11. Plague was prevalent in all parts of the Principality and accounted for 19,380 deaths out of a total of 44,256. Births decreased from a ratio of 22·9 per 1,000 to 20·6, while deaths increased from 40·5 to 48·6. In the 16 medical institutions which were open during the year, 164,910 patients were relieved at a cost of Rs. 53,681. A leper asylum was opened in August 1901 in memory of Her late Majesty Queen Victoria. In this Institution 62 male and 35 female patients were treated. Vaccine operations fell considerably from 31,597 to 16,609. Of these 98 per cent. were successful. The cost of the department was Rs. 6,001.

Finance.

12. The revenue of the State proper fell from Rs. 35,99,923 to Rs. 35,26,525 and the expenditure from Rs. 35,16,413 to Rs. 34,89,201. Including the receipts of feudatory States, the total gross revenue amounted to Rs. 46,61,925 as against Rs. 45,75,047 in the preceding year.

Education.

13. At the end of the year 200 against 228 schools were attended by 8,254 against 13,008 scholars. The total expenditure on education decreased from Rs. 1,33,465 to Rs. 1,18,023. The expenditure on primary education alone amounted to Rs. 56,031 against Rs. 70,710.

2.—OTHER SOUTHERN MARATHA COUNTRY STATES.

1. The following States are situate in the Southern Marátha Country. Their area, population and gross revenue are as shown in the following table:—

Name of State.	Area in Square Miles.	Population.	Average per Square Mile.	Gross Revenue.
				Rs.
Sángli	1,112	2,26,128	208·8	15,18,554
Miraj Senior	339	81,467	240·	3,16,685
Miraj Junior	211	35,806	170·5	3,14,954
Kurundvád Senior	185	42,474	244·1	1,40,367
Kurundvád Junior	114	34,003	298·2	1,39,158
Jamkhandi	524	1,05,357	201·	9,84,962
Mudhol	368	63,001	174·5	3,64,476
Rámdurg	169	37,848	224·05	1,89,196
Total ...	3,022	6,26,084	209·	39,68,352

2. Dundhiráo Tatya, Chief of Sángli, died on 12th December 1901. The State has since been administered by an administrator, entrusted with full powers, under the supervision of the Political Agent. No successor has as yet been recognised by Government, as the late Chief's widow alleged that she was pregnant at the time of his death. Miraj Junior, Jamkhandi and Mudhol remained under the Political Agent's supervision throughout the year owing to the minority of the Chiefs.

Season and Crops.

3. The rainfall was untimely and irregular in its distribution. On the whole the season was hardly a favourable one to the crops. Relief works were opened in two tálukas of Sángli, in Miraj Junior, Mudhol and Jamkhandi. In Miraj Senior no regular relief works were opened, though work was provided for those who required it. The revenue receipts improved considerably from Rs. 34,96,138 to Rs. 39,68,352. The famine charges in the three most affected States, *viz.* Sangli, Jamkhandi and Mudhol, amounted to Rs. 1,84,160.

Police.

4. The permanent police force numbered 1,514, in addition to which there were employed 76 temporary police in Sángli on plague and famine duty. Of the 1,563 persons sent for trial, 835 were convicted—representing a percentage of 53 as against 55 in the previous year. Property of a value of Rs. 1,53,212 was stolen during the year—of which 54 per cent. was recovered—an improvement of 18 per cent. on last year's figures. During the year 3,920 persons were dealt with by the Magistrates, of whom 1,157 were convicted. 151 appeals were preferred, of which all but 16 were disposed of.

Registration.

5. The number of documents registered fell from 9,093 to 8,360. The receipts of the department decreased to Rs. 28,252, realising a net surplus of Rs. 23,230.

Jails.

6. There were 14 jails and 13 lock-ups, in which 1,300 prisoners, against 1,464 in 1900-1901, were confined. The total cost of up-keep amounted to Rs. 31,022 as against Rs. 37,506 in the previous year.

TRIBUTARY STATES. *Southern Marátha States and Khairpur.*

7. The area under forest remained practically the same at 89,488 acres, a small decrease occurring only in the area reserved in Sángli as forest. The receipts amounted to Rs. 24,513 and the expenditure to Rs. 6,976, showing an improvement on last year's figures, which stood at Rs. 18,500 and Rs. 7,864 respectively.

Forests.

8. Of the 6,577 suits which were for disposal during the year, 5,020 or 769 less than in the previous year were disposed of, leaving a balance of arrears of 1,557 as against 1,475 in 1900-1901. Appeals amounted to 697, of which 341 were disposed of.

Civil Justice.

9. The number of applications for execution of decrees rose to 6,051. Of these 4,425 were disposed of during the year.

Execution of decrees.

10. The expenditure in public works rose from Rs. 1,86,742 to Rs. 3,16,965. The current year's totals, however, include expenditure of famine relief works which were excluded from last year's figures.

Public Works.

11. The number of municipalites remained unchanged at 31. The aggregate incomes of these Boards which started with a deficit of Rs. 1,037 totalled Rs. 92,239 as against an expenditure of Rs. 89,148.

Municipalities.

12. The number of hospitals and dispensaries declined to 23, one such institution being abolished in Sángli. In these 2,02,247 persons were treated as against 1,97,022 in the previous year. Vaccinations numbered 13,520. The public health except in Mudhol and Rámdurg was far from satisfactory. Plague, and to a minor degree cholera, was very prevalent in all but the two abovementioned States, 19,010 deaths alone being attributable to plague.

Vital Statistics and Medical Relief.

13. The number of schools open during the year, as compared with the previous year's number, fell from 263 to 257. The attendance decreased to 12,647. The expenditure was slightly lower, *viz.* Rs. 1,10,954 as against Rs. 1,12,949.

Education.

VII.—SIND.

KHAIRPUR.

Ruling Chief—His Highness Mir Sir Faiz Mahommad Khan Talpur, G.C.I.E.; *Caste*—Talpur, Beluch Mahomedan; *Age*—67 years; *Has male issue*; Educated by private tuition.
Area—6,050 square miles; *Population* (1901)—199,313; *Gross Revenue* (1901-1902)—Rs. 13,57,124. *Tribute to British Government*—Nil. *Military Force*—202. *Principal Articles of Production*—Fuller's earth (Chancha), sulphate of soda, cotton, wool, grain, seeds, ghi, tobacco, indigo. *Manufactures*—Cloth, leather, ivory-work, swords, metal-work, cutlery, cotton, silk and woollen work, lacquered wood-work and carpets.

General.

1. The year under report was a successful one. The area under cultivation increased from 190,450 acres to over 200,609 acres. The Revenue receipts advanced from Rs. 11,94,843 to Rs. 13,57,124. 68 miles of canal distributaries were completed during the year, the largest being the Faiz Baksh Wah.

Military force.

2. The Military force consisted of 202 Regulars and 163 Irregulars, the latter showing an increase of 2. The cost of the Department amounted to Rs. 82,774, as compared with Rs. 74,578 in 1900-1901.

Police and Criminal Justice.

3. The total strength of the Police increased by 38 to 215. The number of persons arrested was 248 and that of convictions 206—a percentage of 83 as against 80 per cent. in the previous year. No dacoity took place during the year. There were two cases of murder: in one case the capital sentence was carried out. The percentage of recoveries of property stolen rose from 54 to 59.

Prisons.

4. The Central Jail had an average daily attendance of 189 prisoners and the Sub-ordinate Jail one of 26. The total cost fell from Rs. 14,304 to Rs. 10,622.

Civil Justice.

5. The number of suits filed in the Civil Courts, including arrears, amounted to 1,155, of which 977 were disposed of during the year. Applications for executions of decrees increased from 223 to 333. 92 appeals were for disposal before the Appellate Courts; of these all but 18 were decided during the year.

Registration.

6. At the 5 Sub-Registry Offices 83 documents affecting property to the value of Rs. 24,734 were registered, as against 89 in the preceding year.

Finance.

7. The excess of revenue over expenditure amounted to Rs. 51,596. The closing balance at the credit of the State stood at Rs. 4,88,575.

Vital Statistics and Medical Relief.

8. The season was exceptionally unhealthy, malarial fever being very prevalent. The mortality rose from 1,408 to 2,195, while the number of births declined from 1,925 to 1,502.

9. Vaccinations were more numerous by 389. The State maintains 2 hospitals and 5 dispensaries, in which 20,700 patients were treated at a cost of Rs. 16,136.

Education.

10. There were 150 schools attended by 5,337 boys and 348 girls, against 142 schools attended by 4,439 boys and 388 girls in the preceding year. The total cost under this head rose from Rs. 51,134 to Rs. 60,911.

VIII.—ADEN.

Area (inclusive of Perim), 80 square miles; Population (1901), 43,974; Gross Revenue (1901-1902), Rs. 37,25,915.

Chief Events.

1. Their Highnesses the Duke and Duchess of York visited the Settlement on April 6th, 1901. A commission was appointed in January 1902 to demarcate the boundary between the tribes under the Aden Protectorate and Turkish Yemen.

Revenue and Expenditure.

2. Including an opening credit balance of Rs. 3,24,217 the revenue receipts amounted to Rs. 40,50,127 against an expenditure of Rs. 36,65,130, the closing balance being Rs. 3,84,996.

Police and Criminal Justice.

3. The strength of the police was increased from 268 to 273, but the cost of entertainment decreased from Rs. 74,949 to Rs. 72,243. Cognizable cases numbered 146, in which 230 persons were involved. The percentage of convictions was 88 against 78 in 1900-1901. Stolen property amounted in value 5 to Rs. 6,849, of which 33 per cent. as against 10 per cent. in 1900-1901 was recovered. The 5 Criminal Courts dealt with 453 persons, of whom 71·5 per cent. were convicted.

Prisons.

4. One hundred and eighty-one persons were confined in the prison. The cost of establishment, &c., amounted to Rs. 9,899. Sale of manufactures realised Rs. 2,280.

Civil Justice.

5. Nine hundred and forty-two suits were for disposal before the Civil Courts, of which all but 13 were disposed of. There were 327 applications for execution of decrees, of which 319 were decided. Five appeals were disposed of.

Registration.

6. One will was deposited in the Registrar's office. The Sub-Registrar's office dealt with 132 documents valued at Rs. 6,08,706. The receipts (Rs. 1,403) fell short of the expenditure by Rs. 25.

Municipalities.

7. The municipalities at Aden and Sheikh Othman had a combined income of Rs. 2,08,701 and an expenditure of Rs. 1,65,346. The revenue of Sheikh Othman increased from Rs. 38,432 to Rs. 63,186. The balance in hand at the close of the year was Rs. 92,778.

Public Works.

8. Under Imperial Military Works, quarters for the Chief Supply and Transport Officer and a central workshop for the Royal Artillery were completed, as also quarters for Marine Coast Defence lascars. No Imperial Civil Work was undertaken. Under Provincial Civil Works, quarters for a Hospital Assistant and servants were completed.

Quarantine.

9. The Venice Convention Rules continued to be enforced against arrivals from the East. Twenty-five ships with 13,431 pilgrims were inspected, but none granted free practique. The Port Surgeon examined 399 steamers and 51 buggalows with 94,642 passengers. 10,614 passengers were landed under observation.

Vital Statistics and Medical Relief.

10. Births increased from 557 to 778, and deaths decreased from 1,930 to 1,036. The number of patients relieved at the 2 hospitals and 4 dispensaries was 28,689 against 26,864 in 1900-1901. The number of vaccination operations decreased from 3,937 to 3,315, of which 1,889 were successful.

Education.

11. The average attendance at the English Residency schools was 65 against 49 in 1900-1901, and at the Arabic schools 257 against 233. Twenty-nine out of 33 indigenous schools with an attendance of 1,385 boys and girls were given grants-in-aid. The expenditure of the Department was Rs. 5,636.

CONDITION OF THE PEOPLE.

Information under this heading will be found in the Supplementary Report.

CHAPTER II.—ADMINISTRATION OF THE LAND.

1. Realization of Land Revenue.

The following table shows the number of occupancies in each district and the number of distraints effected for the collection of arrears of the Government demand :—

Divisions.	Districts.	Number of Occupancies.		Number of Distraints.	
		1900-1901.	1901-1902.	1900-1901.	1901-1902.
Sind	Thar and Párkar	41,783	41,679	1	.....
	Shikárpur	58,380	31,259	.....	.....
	Hyderabad	33,040	41,679	16	.....
	Upper Sind Frontier	4,245	4,298	9	86
	Karáchi	24,641	11,819	1	.....
	Lárkhána	.....	43,188	.....	11
	Total	162,089	173,922	27	97
Northern Division	Broach	48,638	48,414	35	39
	Ahmedabad	58,415	58,300	19	.....
	Panch Maháls	28,768	28,923	.....	.....
	Kaira	110,874	107,850	741	8
	Surat	77,580	77,761	1	42
	Thána	73,362	83,513	318	14
	Total	397,637	404,761	1,114	103
Central Division	Khándesh	141,820	142,549	82	9
	Násik	77,323	76,477	.....	.....
	Sholápur	48,301	47,740	12	2
	Poona	72,644	72,402	50	5
	Satára	73,877	73,900	22	9
	Ahmednagar	73,198	72,322	104	10
	Total	487,163	485,390	270	35
Southern Division	Belgaum	52,066	52,020	13	1
	Dhárwár	82,265	82,443	4	.....
	Ratnágiri	138,077	138,184	964	574
	Kánara	36,363	36,837	77	15
	Kolába	59,584	59,242	173	8
	Bijápur	81,375	81,432	1	9
	Total	449,735	450,158	1,232	607
	Grand Total	1,496,624	1,514,231	2,643	842

The number of occupancies which had risen in 1900-1901 to 1,496,624 increased last year to 1,514,231, the largest increase being again in Sind (11,233). The total number of distraints was 842 against 2,643 in 1900-1901. The decrease was distributed among the three Divisions of the Presidency Proper, Sind alone exhibiting an increase. The amount collected was Rs. 4,87,74,894. The total demand for 1901-1902 was Rs. 3,90,54,194.

2. Surveys.

1.—Great Trigonometrical Survey.

In continuation of the former season's operations a party of the Survey of India was at work in the Shikárpur, Hyderabad, and Thar and Párkar Districts, and in the Khairpur State. Traversing by theodolite of village boundaries was completed over an area of 1,763 square miles and triangulation over 2,026 square miles. The detail survey on the scale of 2 inches to a mile covered an area of 1,562 square miles, while the detail survey of the desert portion of the Khairpur State on the half inch scale extended over an area of 4,554 square miles.

2.—Levelling and Tidal Operations.

No levelling operations were carried out during the year in any part of the Presidency.

Automatic tidal observations were continued as in the previous year at the following seven stations :—Perim, Aden, Karáchi, Port Albert Victor in Káthiáwár, Porbandar, Apollo Bandar (Bombay), and Prince's Dock (Bombay). Except at Porbandar, observations were

carried out without interruption during the year. At Porbandar the cyclone in May 1902 stopped work till June 7th and the observations at that station were generally faulty, the pipe being repeatedly choked with silt. At Karáchi the highest and lowest tides during the last 34 years were recorded during the cyclone in June 1902.

As in previous years pole observations were continued at Bhávnagar under the directions of the State Engineer.

Tidal Tables for the year 1902 were published for the ports mentioned above and for Okha Point, Bhávnagar and Kárwár.

3.—Revenue Surveys.

Gujarat. 1. Two establishments were retained in Gujarát—a field party, and a staff of classers and register writers at the Central Record Office, Broach. During the field season the field party was employed in the districts of Ahmedabad, Kaira, Broach and Panch Maháls in connection with measurement work of lands taken up for famine relief works. They measured 5,538 numbers with an acreage of 8,729 acres. The staff at the Central Record Office were employed in the preparation of the ákárbands of the Ankleshvar and of part of the Chikhli Tálukas and of the duplication of the ákárbands of the Jaláipur, Bulsár and Olpád Tálukas. In addition the working out of the sub-soil himáyat and ákásia assessments of 5,294 numbers in the Mátar Táluka was completed.

Dakkan. 2. The special party, which had been sanctioned for the survey of the Akráni Pargana in the Khándesh District, was, in consequence of the postponement of the Akráni Survey operations, employed on the measurement of lands taken up for roads and tanks in the Poona District, on the classification of 10 Inám villages in the Poona, Ahmednagar and Sholápur Districts, and on the preparation of ákárbands of Inám villages in the Sátára District. In addition the Survey Daftardárs' establishment was engaged in completing the ákár work of 219 villages. Original settlement proposals for three Inám villages in the Khatáv Táluka of the Sátára District were completed.

Southern Division. 3. A small field party was chiefly employed in the ákár work of the Mahád and Mángaon Tálukas of the Kolába District and of the Dáhánu Táluka in Thána. Revision settlement proposals for one village in the Parasgad Táluka of the Belgaum District were completed.

Sind. 4. A party of trained tapedárs was employed in each of the five districts of Sind. In the course of the season, 36,604 numbers with an area of 762,792 acres were measured. In addition two surveyors, working independently, measured 8,328 numbers, bringing the total amount to 171,320 acres as against 131,402 in the previous year. Exclusive of the pay of the tapedárs which is met from the Village Cess Fund, the total cost of the Department in Sind amounted to Rs. 1,06,000.

4.—Bombay Forest Survey.

The party of the Survey of India at work in this Presidency continued its operations in the districts of Thána, Násik, Belgaum, Dhárwár, Kánara and Kolába. It completed the detail survey of 768 square miles, the triangulation of 420 square miles and the traversing of 504 miles, the figures for the previous year being respectively 670, 256 and 190. The total cost of the Department rose from Rs. 64,611 to Rs. 69,333. No detail 16″ survey was undertaken during the year.

3. Settlements.

1.—Presidency Proper.

Revision settlement proposals were sanctioned for one táluka in Broach (Ankleshvar), five in Khándesh, one in Násik, two in Kolába and three in Kánara. The revised rates were introduced in the tálukas of Ankleshvar, Shirpur and Sháháda. In addition revised rates were sanctioned for 14 scattered Government and Inám villages in the districts of Ahmedabad, Ahmednagar, Poona, Sátára, Belgaum, Dhárwár and Kolába. Original settlement proposals were sanctioned for three Inám villages in the Sátára District and one Government village in the Belgaum District.

2.—Sind.

Proposals for the introduction of an Irrigational Settlement into the Rohri Táluka of the Sukkur District were sanctioned, the new rates to come into force from 1902-1903.

3.—Alienation Settlements.

No sanads were issued in the Northern Division and in Sind. In the Central Division 35 sanads were issued and inquiries into 198 Warshásan and Devasthán cases were completed in the Poona District. In the Southern Division 39 sanads were issued and 9 Devasthán and Warshásan cases were settled in the district of Ratnágiri.

4.—Land Records.

The compilation of a Record of Rights was commenced in all the districts except Ahmedabad, Kaira, Panch Mahâls and Bijápur, in which the work was postponed on account of famine. The compilation was begun in one táluka of each sub-division, or in 35 tálukas in all. Record of Rights.

In connection with the above, the training of Village Accountants in the elements of Survey was commenced in all the districts with the exception of those mentioned above. Survey classes were held in 69 tálukas and 10 per cent. of the Village Accountants received instruction. 454 Vatandár Kulkarnis, other than officiators or candidates for Talátiships, also attended the classes. Training of Village Accountants in Survey.

4. Waste Lands.

The following tables show the variations in the area of land under cultivation in the past two years :—

1900-1901.

Districts.	Total culturable area.	Occupied area.	Balance of culturable waste.	Area taken up during the year.	Area relinquished during the year.
Northern Division.	Acres.	Acres.	Acres.	Acres.	Acres.
Ahmedábád	1,529,403	1,371,924	157,479	9,425	35,178
Kaira	529,196	432,976	96,221	910	6,858
Panch Mahâls	553,311	449,096	104,215	312	1,819
Broach	499,946	459,396	40,549	113	5,500
Surat	715,493	655,475	60,018	332	1,209
Thána	972,357	857,736	114,621	142	14
Total	4,799,706	4,226,603	573,103	11,234	50,578
Central Division.					
Ahmednagar	2,603,490	2,556,773	46,717	53	196
Khándesh	3,664,909	2,891,739	773,170	846	1,465
Násik	2,188,712	2,034,554	154,158	3,268	3,652
Poona	1,923,602	1,912,517	11,085	8	113
Sátára	1,438,236	1,401,843	36,393	284	74
Sholápur	2,101,092	2,085,844	15,248	10	4
Total	13,920,041	12,883,270	1,036,771	4,469	5,504
Southern Division.					
Belgaum	1,239,459	1,169,584	69,876	544	465
Bijápur	2,199,273	2,137,033	62,240	637	246
Dhárwár	1,650,850	1,592,660	58,190	801	524
Kánara	386,536	335,160	51,376	2,159	574
Kolába	727,891	691,544	36,346	438	10
Ratnágiri	1,608,608	1,594,773	13,835	608	6
Total	7,812,617	7,520,754	291,863	5,187	1,825
Sind.					
Karáchi	2,721,230	968,799	1,752,432	49,510	4,938
Hyderábád	3,710,423	1,718,699	1,991,723	116,684	22,636
Shikárpur	2,833,432	1,425,409	1,408,023	58,430	8,352
Thar and Párkar	2,973,212	1,809,196	1,164,016	132,752	15,360
Upper Sind Frontier	1,183,409	830,352	353,057	31,334	5,272
Total	13,421,706	6,752,455	6,669,251	388,710	56,558

1901-1902.

Districts.	Total culturable area.	Occupied.	Balance of culturable waste.	Area taken up during the year.	Area relinquished during the year.
Northern Division.	Acres.	Acres.	Acres.	Acres.	Acres.
Ahmedábád	1,460,558	1,221,990	238,568	21,672	9,440
Kaira	537,176	412,236	124,940	23	6,351
Panch Mahâls	553,307	439,374	113,932	4,209	7,813
Broach	500,765	454,268	46,498	47	2,206
Surat	712,044	639,549	72,494	378	1,111
Thana	984,206	869,491	114,715	64	25
Total	4,748,056	4,036,908	711,147	26,393	26,946

Districts.	Total culturable area.	Occupied area.	Balance of culturable waste.	Area taken up during the year.	Area relinquished during the year.
Central Division.	Acres.	Acres.	Acres.	Acres.	Acres.
Ahmednagar	2,603 645	2,556 505	47,140	66	330
Khándesh	4,057,527	3,283,523	772,004	4,726	2,938
Násik	2,187,927	2,030,781	157,143	3,996	4,428
Poona	19,27.916	1,914,978	12,938	96	38
Sátára	1,438,447	1,401.965	36,482	37	124
Sholápur	2,103,899	2,086,167	22,732	1,378	1,701
Total ...	14,322,361	13,273,922	1,048,439	10,299	9,559
Southern Division.					
Belgaum	1,239,651	1,169,936	69,715	703	648
Bijápur.	2,199,247	2,137,229	62,018	540	44
Dhárwár ... ... —	1,651,005	1,594,487	56,518	1,871	110
Kánara	386,667	336,352	50,315	1,794	486
Kolába	728,001	691.802	36,199	371	37
Ratnagiri	1,608,567	1,594,805	13,762	39	3
Total ...	7,813,138	7,524,611	288,527	5,318	1,328
Sind.					
Hyderábád	3,733,626	1,750,688	1,982,939	108,032	76,044
Karáchi	1,796,983	608,455	1,188,528	13,275	26,764
Lárkhána	2,039,145	1,099,705	939,440	13,394	23,394
Sukkur	1,731,479	683,422	1,048,057	29 441	8,578
Thar and Párkar	2,991,790	1,836.460	1,155.330	57,096	29,831
Upper Sind Frontier	1,182,505	823,966	358,538	20,205	26,591
Total ...	13,475,528	6,802,696	6,672,832	241,443	191,202

There was a general contraction in the occupied area in all the districts of the Northern Division except Thána. In Sind the increase noted last year was maintained, 50,240 acres having come under cultivation during the year. There was also a small increase in the area occupied in the Southern Division. The decrease in the area cultivated in Násik and Ahmednagar was more than counterbalanced by the increase in other districts of the Central Division, notably Khándesh.

5. Wards' and Other Estates.

The majority of estates of this description in the Northern Division and Sind were in charge of the Tálukdári Settlement Officer and of the Manager, Encumbered Estates, respectively. Of the estates directly managed by Collectors, 27 were in the Northern Division, 8 in the Central Division, 7 in the Southern Division and 69 in Sind.

1.—Estates in charge of the Ta'lukda'ri Settlement Officer.

General.

1. The revenues of the estates were affected by the adverse season. Out of Rs. 13,00,000, only Rs. 2,60,884 were realised; in the Ahmedabad and Kaira Districts no less than Rs. 2,82,874 and Rs. 36,656, respectively, were remitted. Rs. 1,59,759 were given as Tagávi for seed and subsistence and purchase of cattle; and a sum of Rs. 19,000 received from the Famine Relief Fund was distributed in charitable relief.

Encumbered estates under Act II of 1862.

2. These numbered 34 in Ahmedabad, 20 in Kaira and 2 in Broach. No payments were made by any of them in discharge of their debts to Government.

Minors' estates.

3. Minors' estates numbered 42, of which 35 are in Ahmedabad, 5 in Kaira and 2 in Broach. Of this number 31 are involved in debt.

Estates under management under Sections 320 and 504 of the Civil Procedure Code.

4. 301 estates were under management under Sections 320 and 504 of the Civil Procedure Code. The amount of decretal debts was Rs. 6,64,323. No payments were made during the year.

Estates under management under Section 28 of the Tálukdári Act.

5. The number of estates managed under Section 28 of the Tálukdári Settlement Act was 212. Many of these were handed over to the department for management in order to enable the Tálukdárs to obtain Tagávi loans.

Decrees.

6. Decrees for execution, including 10 received during the year, amounted to 733. Of these 419 were kept over for departmental management, 300 for inquiry and 14 returned to the Civil Courts. No amount was remitted in payment to the Civil Courts, and no estate was sold.

Loans.

7. Nineteen applications were made to borrow Rs. 1,08,740. Sanction was given to the extent of Rs. 46,200.

Partition cases.

8. There were 14 partition cases, of which 2 were disposed of.

2.—Encumbered Estates, Sind.

Estates in the charge of District Officers.

1. Of the three estates under the management of the Collector of Karáchi in 1900-01, two were transferred to the Collector of Lárkhána on the formation of that Collectorate. The receipts of the estate under the Collector of Karáchi, including a credit balance of Rs. 3,427, were Rs. 12,632, of which a sum of Rs. 9,686 was spent, Rs. 928 being expended in liquidation of private debts. The receipts of the two estates in the Lárkhána District were Rs. 26,415. Of this sum Rs. 12,974 were spent in liquidation of private debts, Rs. 7,430 on miscellaneous charges, and a balance of Rs. 6,009 carried forward to next year's credit.

Estates in the charge of Manager of Encumbered Estates, Sind.

2. The number of estates under the Manager, Encumbered Estates in Sind, at the close of the last year was 521. 25 new estates were taken under management and 22 were thrown out, leaving 524 at the close of the year.

The receipts amounted to Rs. 8,41,507 and the opening balance of the year amounted to Rs. 1,56,951. Of the total amount of Rs. 9,98,458, a sum of Rs. 8,63,985 was spent, leaving a balance of Rs. 1,34,473 at the close of the year. Rs. 49,673 and Rs. 1,32,307 were disbursed in liquidation of loans and private debts respectively.

The amount due to Government on account of loans at the close of the year was Rs. 56,488 and Rs. 81,550 were due on account of private loans.

6. Revenue and Rent-paying Classes.

Information under this heading will be found in the Supplementary Report.

CHAPTER III.—PROTECTION.

Legislative authority.

The Governor of Bombay in Council has legislative authority in this Presidency.

Constitution of the Council of the Governor for making Laws and Regulations.

2. The Governor's Council, when sitting for the purpose of making Laws and Regulations, includes, in addition to the Members of the Executive Government (who in the Indian Councils Act of 1861 are termed "Ordinary Members"), certain Members entitled to sit and vote only at meetings held for that purpose.

Additional Members.

3. These additional Members consist, under the Indian Councils Acts of 1861 and 1892, of the Advocate General or officer acting in that capacity, and from eight to twenty other persons nominated by the Governor. Not less than one-half of the persons nominated to be additional Members must be non-official persons, that is, persons who at the date of their nomination are not in the Civil or Military Service of the Crown in India. Of the additional Members, eight are nominated by the Governor on the recommendation of the following Bodies and Associations, respectively, namely :—

(A) The Corporation of Bombay;

(B) Such Municipal Corporations or group or groups of Municipal Corporations, other than the Corporation of the City of Bombay, as the Governor in Council may, from time to time, prescribe by Notification in the *Government Gazette*;

(C) Such District Local Boards, or group or groups of District Local Boards as the Governor in Council may from time to time prescribe as aforesaid;

(D) The Sardars of the Dakhan, or such other class of large landholders as the Governor in Council may, from time to time, prescribe as aforesaid;

(E) Such Association or Associations of merchants, manufacturers or tradesmen as the Governor in Council may, from time to time, prescribe as aforesaid;

(F) The Senate of the University of Bombay.

Each of the above Bodies or Associations may have at least one person nominated upon its recommendation, but the first and the last-named Bodies cannot have more than one each. To such of the remaining seats as are not filled by officials the Governor may, at his discretion, nominate persons in such manner as shall, in his opinion, secure a fair representation of the different classes of the community. Each additional Member is nominated for a term of two years, and is summoned to all meetings held during that period for the purpose of making Laws and Regulations.

Meetings of the Council.

4. The Council does not sit permanently nor are there any fixed sessions, but it is convened by summons, at such times and places as to the Governor may seem most convenient and suitable. Meetings are ordinarily held in Bombay during the cold season and in Poona during the rains and on special occasions they have been held at Mahábaleshvar. The Governor is the President of the Council. In his absence, the senior Civil Ordinary Member of Council presides. To constitute a quorum at any meeting, the Governor or an Ordinary Member of Council and four other Members must be present. In cases of difference of opinion, the question is put to the vote and decided by the majority of votes; the President having, when the votes on either side are equal, a casting vote.

Legislative functions.

5. Subject to certain clearly defined restrictions, the Council is authorized to make Laws and Regulations "for the peace and good Government of the Presidency." The limitations placed upon its powers are as follows :— It cannot make any Law or Regulation affecting the provisions of the Indian Councils Act or any other Act of Parliament in force in the Bombay Presidency, and it cannot, save with the previously obtained sanction of the Governor General, make or take into consideration any Law or Regulation —

(1) affecting the public debt of India or any tax or duty levied by the authority of the Government of India;

(2) regulating the current coin or the issue of any Bills, Notes or other Paper Currency;

(3) regulating the conveyance of letters by the Post Office or of messages by the electric telegraph;

(4) altering in any way the Indian Penal Code;

(5) affecting the Religion or religious rites and usages of His Majesty's subjects in India;

(6) affecting the discipline of His Majesty's Military or Naval Forces;

(7) regulating Patents or copyright; or

(8) affecting the relations of the Government with Foreign Princes or States.

Discussion of the Annual Financial Statement.

6. Under Section 2 of the Indian Councils Act of 1892, the Governor in Council has, with the sanction of the Governor General in Council, made rules authorising the discussion of the Annual Financial Statement of the Government of Bombay at a meeting of the Council for the purpose of making Laws and Regulations. After the Statement has been explained by the Financial Member of the Executive Government each Member is at liberty to offer any observations he may wish to make on it, but the discussion is limited to those branches of the Revenue and Expenditure which are under the control of the Local Government and it is not permissible to enter upon a criticism of Imperial Finance. The Financial Member has the right of reply, and the discussion is closed by the President making such observations as he may consider necessary.

Right of interpellation.

7. The Governor in Council has also, under Section 2 of the Act of 1892, and with the sanction of the Governor General in Council, framed rules for the asking of questions, under certain conditions and restrictions. At least six clear days' notice must, unless the President allows a question to be asked with shorter notice, be given by a Member of his intention of asking a question, and the question must relate only to public affairs with which the Government is officially connected, or to matters or branches of administration under its control and for which it is responsible. As to matters which are, or have been, the subject of controversy between the Governor General in Council or the Secretary of State and the Government of Bombay, no question may be asked or answered except as to matters of fact. Any question which, in the opinion of the President, cannot be answered consistently with the public interests, may be disallowed.

Procedure as to bills.

8. When legislation is determined on, the Executive Department of Government chiefly concerned embodies its views and proposals, after consulting any other Departments more remotely concerned, in the form of a draft Bill. If it becomes necessary to communicate with the Government of India on any matters which it is proposed to include in the Bill, such communication is confined to such matters. Sanction is not invited to the Bill as a whole by the originating Executive Department. When the Bill has been finally determined on, and approved, as revised by the Governor in Council, it is printed and forwarded with a Statement of Objects and Reasons to the Legislative Department of Government, which then applies for the sanction of the Governor General, or of the Governor General in Council, as the case may be, if necessary.

9. Bills are of three classes :—

Class I.—Those which under the orders marginally noted require the previous sanction of the Government of India, being Bills containing penal clauses or creating offices which involve a charge upon the general revenues.

Despatch from Her Majesty's Secretary of State, No. 35, dated 1st December 1862.
Letter from the Government of India to the Government of Bombay, No. 1180, dated 18th August 1865.

Class II—Those which require under Section 43 of the Indian Councils Act, 1861, or under Section 5 of the Act of 1892, the previous sanction of the Governor General.

Class III.—Those which can be introduced without a prior report to the Secretary of State and the Government of India, *viz* :—

(*a*) Consolidation Bills, pure and simple, consolidating Acts of the Local Council concerned;

(*b*) cases in which the approval of the Secretary of State and the Government of India to the principle of the legislation proposed has already been obtained and a further reference is, in the opinion of the Local Government, unnecessary.

(*c*) cases in which the legislation proposed is, in the opinion of the Local Government, of a purely formal or unimportant character; and

(*d*) cases in which the legislation proposed cannot, in the opinion of the Local Government, be without serious evil delayed in order to admit of a prior report to the Secretary of State and the Government of India.

Bills falling under Classes I and II are, before introduction, transmitted with a despatch to the Secretary of State, a copy thereof and of its enclosures being forwarded for information with a covering letter to the Legislative Department of the Government of India.

Where a Bill contains penal clauses or provisions which, under Section 43 of the Indian Councils Act, 1861, or Section 5 of the Indian Councils Act, 1892, require the previous sanction of the Governor General, such previous sanction is expressly applied for when the draft is submitted to the Legislative Department of the Government of India.

When a Bill has been submitted to the Secretary of State and the Government of India as aforesaid, it is not introduced into the Council until the receipt of a communication from the Legislative Department of the Government of India intimating that the penal clauses or other clauses (if any) requiring previous sanction are sanctioned and that the Secretary of State and the Government of India have no present intention of interfering with the measure. If no communication and no order to the contrary are received within two months from the date of the despatch transmitting the Bill to the Secretary of State, and if the sanction (if any) required

under Section 43 of the Indian Councils Act, 1861, or Section 5 of the Indian Councils Act of 1892 has been obtained, the Bill is introduced and proceeded with on the assumption that the penal clauses (if any) are approved and that there is no present intention on the part of either the Secretary of State or the Government of India of objecting to the measure. The omission of either the Secretary of State or the Government of India to communicate any remarks regarding a measure dealt with as aforesaid cannot, however, be taken to imply final approval of the measure, and is not to be regarded as in any way affecting the right of the Governor General to withhold his assent therefrom under Section 40 or that of His Majesty to signify his disallowance under Section 41 of the Indian Councils Act, 1861.

In the case of Bills falling under Class III, if the Bill is introduced without a prior report to the Secretary of State and the Government of India, a copy of it and all necessary papers connected therewith are forthwith transmitted to the Secretary of State with a full explanatory despatch, and the Bill is proceeded with without waiting for a reply. Where the Bill contains penal clauses, the sanction thereto of the Government of India in the Legislative Department is applied for, and the Bill is not introduced until the receipt of such sanction or the expiration of one month from the date of application therefor, without the receipt of any reply from the Government of India. If the Bill contains provisions which under Section 43 of the Indian Councils Act, 1861, or Section 5 of the Indian Councils Act, 1892, require the previous sanction of the Governor General, such previous sanction is applied for and obtained from the Legislative Department of the Government of India before the introduction of the Bill.

Introduction.

10. No business other than (1) the consideration and enactment of Bills introduced into the Council for the purpose of being enacted, (2) the discussion of the Financial Statement, and (3) the asking of questions, can be transacted at a meeting of the Council. The first step towards the enactment of a Bill is its introduction. This may be done in two ways. The Governor may order the publication in the *Government Gazette* of a Bill,* together with the Statement of Objects and Reasons which accompanies it, and such publication is deemed to be the introduction of a Bill; or any Member may move, at a meeting of the Council, for leave to bring in a Bill, in accordance with the provisions of Section 33 of the Indian Councils Act, 1861, provided that seven days' previous notice of the title and subject of the Bill has been given, and, if the leave is accorded, may send the Bill with a Statement of Objects and Reasons to the Secretary, who then causes it and the statement to be printed, and, if so ordered by the Council, to be translated into such native language or languages as may be deemed requisite. In the case of every Bill introduced into the Council, the Secretary sends a copy thereof and of the Statement of Objects and Reasons to each Member of the Council and causes the Bill and Statement of Objects and Reasons to be published in the *Government Gazette*. Copies of the Bill and of the Statement are also distributed to the press and to the public in such manner as the Governor in each case may direct. No motion that a Bill be read the first time is made until at least fifteen days after copies of the Bill and of the Statement of Objects and Reasons have been furnished to each Member and until fifteen clear days from the date on which the Bill was introduced. Any protracted discussion rarely occurs on the motion for the first reading of a Bill, and on that motion being carried, the Bill is, as a general rule, referred for consideration to a Select Committee. The Select Committee is appointed by the Council and ordinarily consists of the Member in charge of the Bill and two or more other Members. A period is fixed within which the Committee is to present its report, and it is also determined whether the report shall be translated into any of the vernacular languages. The Select Committee then meets and considers the Bill and prepares a report showing the modifications, if any, recommended by it, and this report, together with the Bill, as amended by the Committee, is printed and published in the *Government Gazette* and copies are sent to all the Members.

* Under Rules 22 of Rules for Conduct of Business.

Reference to Select Committee.

Second Reading.

11. After the lapse of a further interval, which cannot be less than fifteen days after the report has been supplied to the Members, the report is taken into consideration by the Council, and the Member in charge then moves the second reading of the Bill. It is at this stage of the Bill that the most important discussion ordinarily arises, as, when the second reading is carried, the principle of the Bill is considered to be affirmed. Amendments of any moment or affecting the principle of the measure are, therefore, brought forward at the second reading, after due notice of not less than five clear days has been given by the Member who intends to propose them. If the motion for the second reading is carried, the Council proceeds to consider the Bill in detail, going through it section by section. When this close examination is finished and all the alterations deemed expedient have been effected, the Bill is, at the same meeting or, if any amendments not merely clerical have been made, at a subsequent meeting, read a third time and passed. The President then signs a certificate at the foot of the Bill to the effect that it was passed at a meeting of the Council held on a certain day, and the Bill is then laid before the Governor in order that he may declare that he assents thereto or withholds his assent therefrom. An authentic copy of the Law or Regulation when assented to is sent, with copies of all the proceedings in Council connected with the Bill, to the Governor General for his assent. If the Governor General assents to the Law or Regulation, his assent is signified to the Governor and is published by the Governor in the *Government Gazette*, under the signature of the Secretary. If the Governor General witholds his assent in any case, he signifies to the Governor in writing his reason for so doing.

2. Course of Legislation.

1. Four Acts were passed by the Council of His Excellency the Governor of Bombay for making Laws and Regulations and assented to by His Excellency the Viceroy and Governor General during the year. Acts passed.

These were :—

(1) Act No. V of 1901 (An Act to amend the Bombay A'bkári Act, 1878).

(2) Act No. VI of 1901 (An Act to amend the Bombay Land Revenue Code, 1879).

(3) Act No. I of 1902 (an Act to amend the Dakhan Agriculturists' Relief Acts, 1879 to 1895).

(4) Act No. II of 1902 (An Act to amend the Karáchi Port Trust Acts, 1886).

The object of Act No. V of 1901 was to enable Government to tax and regulate the traffic in hemp drugs in accordance with the recommendations of the Hemp Drugs Commission of 1894. The main object of Act No. VI of 1901 was to enable the Collector to give lands on short leases and special terms, which may include a restriction of the right to transfer. Act No. I of 1902 was designed to obviate the inconvenience caused by the rigidity of Section 59 of the Act (XVII of 1879) requiring that the original of any instrument which is to be modified or wholly or partly superseded by a fresh instrument shall in all cases be produced before the Village Registrar. The reasons for introducing Act No. II of 1902 were set forth at page 29 of the Bombay General Administration Report for 1899-1900.

2. Five Bills were introduced into the Council of His Excellency the Governor during the year under report. Two of these were passed into Acts, leaving, with one Bill from the previous year, a total of four pending at the close of the year. These were :— Bills.

(1) Bill No. IV of 1898 (A Bill to amend the Khoti Settlement Act, 1880).

(2) Bill No. I of 1902 (A Bill to amend the Law relating to the Bombay City Police).

(3) Bill No. II of 1902 (A Bill to extinguish the Rights of the Public to navigate the Worli Tidal Creek).

(4) Bill No. III of 1902 (A Bill to amend the Bombay District Municipal Act, 1901, and the Bombay Prevention of Adulteration Act, 1899).

3. Police.

For details *vide* appendices to the Annual Reports on the Bombay District Police and the Bombay City Police for the year 1901-1902 and the Tables under VII.—Police appended to the Judicial and Administrative Statistics of British India for 1901-1902.

I.—Mofussil, Sind and Railway Police.

1. The total Police force of the Presidency, inclusive of Railways and Sind, stood at 22,147 officers and men, and shows a net increase of 114 officers and men as compared with the previous year's strength, the increase being chiefly due to additions in Sind. The above force was maintained at a cost of Rs. 43,48,738 as against Rs. 46,25,515 in the previous year, which gives a decrease of Rs. 2,76,777. The decrease in the Northern Division is said to be partly caused by grain compensation not having been paid and other minor economies. Similar remarks apply to Sind. In addition to this force, a considerable body of extra Police was enrolled for plague and famine duty. The Police force in Khándesh was also augmented by the enlistment of 11 officers and 133 men for operations against the Bhil dacoits. Strength and cost.

2. There is no improvement in the education of the force as compared with last year. There were during the year under report 3,223 officers and 7,655 men, total 10,878, in the force who could read and write against 3,225 and 7,616, total 10,841 in 1900, giving a percentage of 49·21 as against 49·53 in the previous year. As compared with the Presidency proper and the Railways, the Sind Police seems backward in education. The best educated force is that on the Railways, where 62 per cent. of the men can read and write. In Sind the proportion is 30 per cent. The figures on the sanctioned strength of the whole Presidency work out at 69 per cent. for educated officers and 43 per cent. for men. Education.

3. During the year under report all the 18 districts competed at the annual Presidency competition for prizes. The number of men qualified to compete has fallen this year to 774 from 815 last year. The falling off is to be attributed to the continued strain on the resources of the force due to plague and famine. As regards marksmanship there has been a slight improvement, and the general standard of efficiency is steadily, though slowly, improving. Sind has a separate annual competition, where marksmanship shows signs of falling off. Railways do not compete. Drill and ball practice.

4. The total number of punishments inflicted during the year under report amounted to 3,261 as against 3,956 in the previous year, a decrease of 695. The number of judicial punishments was 162 for the entire Presidency, inclusive of Sind and Railways, as compared with 196 in the previous year. Punishments.

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Rewards.

5. There is a sensible decrease in the number of rewards by promotion and the grant of good service tickets and money. In 1900 these totals stood at 285 and 4,905, respectively, and they have dropped to 147 and 4,725 in the year under report.

Total crime, cognizable and non-cognizable.

6. The total number of cognizable and non-cognizable offences reported during the year was 142,092 as against 247,881 in the previous year. This shows a net decrease of 105,789 cases. In Sind there is a rise from 23,928 to 25,237. On Railways the number fell to 4,106 from 4,428 in 1900. Out of the total of 142,092 offences reported, 66,451 are classed under the Indian Penal Code and 75,641 under Class VI as compared with 74,550 and 173,331 last year.

Cognizable crime.

7. The total number of cases instituted before, or taken up by, Magistrates, has increased from 10,564 in 1900 to 11,780 in the year under report.

Police cognizable cases.

8. The total number of cognizable cases referred to the Police or taken up by them was under "All Cases" 40,476 as against 49,590 in the previous year. In spite of severe scarcity, unfavourable seasons and plague epidemics, the crime returns show a decrease of 9,114 cases. The total amount of cognizable crime is made up of 32,488 cases under the Indian Penal Code and 7,988 cases under Class VI as against 40,954 and 8,636, respectively, in the previous year. The decrease is general. It is most marked in the Northern and Central Divisions, where the fall amounts to 3,497 and 4,545 cases respectively. The Central Division, with 12,218 cases against 16,540 in the previous year, yielded the largest amount of crime under the Indian Penal Code

Police cases for disposal.

9. Including pending cases of the previous year, complaints for disposal totalled 44,190 as against 53,159 in the previous year. All but 147 were investigated. In only 10 of these was Police action ordered by Magistrates after the Police had refused to investigate.

Police cases struck off.

10. Cases struck off during the year under report numbered 13,445 as against 13,124 in the previous year; 12,571 were under Indian Penal Code and 874 under Class VI as against 12,395 and 729, respectively, in the year before.

Maliciously false cases.

11. Maliciously false cases amounted to 982 and show a decline of 38 cases as compared with the previous year, Sind being responsible for almost half the number. The ratio of false cases to Police cognizable cases for disposal for the whole Presidency has risen from 24 to 30 per cent.

Real cases for disposal.

12. Eliminating cases struck off the total amount of real crime for disposal under "All Classes" amounted to 30,745 cases as against 40,035 in the previous year, 23,516 being under Indian Penal Code and 7,229 under Class VI as compared with 31,989 and 8,046 in the year 1900. This gives a drop of 9,290 cases of true crime dealt with by the Police this year, made up of 4,436 in the Central Division, 3,395 in the Northern Division, 866 in Sind, 265 in the Southern Division and 328 cases on Railways.

Success of the Police in dealing with offences.

13. Out of 21,899 cases disposed of by trial, 17,383 ended in conviction, giving a percentage of 79 against 83 in 1900. Under Indian Penal Code the ratio is 76 as compared with 82. Under Class VI it stands at 85 against 88. Out of 431 real cases of murder for disposal, 391 were brought to trial and convictions were obtained in 55 per cent. as against 52 in the previous year. Under dacoity the Police have not secured so large a measure of success this year as last. The percentage of convictions to cases tried has fallen from 65 to 58 in 1901. In robberies the percentage results show again a marked falling off as compared with those in 1900. A drop of 10 per cent. from 73 in 1900 to 63 in 1901 has taken place. Under burglaries there were altogether 5,373 cases for disposal; 1,839 only came to trial and with a percentage of convictions of 78 as against 84 in the previous year. The falling off here noticeable runs through the figures for the Presidency, Sind and the Railways. The ratio of convictions in cases of thefts tried shows a variation of 2 per cent. only, and stands at 85 on a total of 7,801 tried (out of a total of 11,938 real cases for disposal) against 87 in 1900. "Under Receiving" the number of cases for disposal fell from 948 in the previous year to 722 in 1901. Convictions were obtained in 631, giving a percentage of 74 as against 76 in the preceding year.

Property stolen and recovered.

14. The value of property stolen in cognizable cases amounted to Rs. 17,53,358 as against Rs. 16,12,155 in the previous year, showing a net increase of Rs.1,43,203. The value of property restored amounted to Rs. 6,14,883, giving a percentage of 35·06 as against 41 in the previous year. In non-cognizable cases Rs. 24,239 worth of property was stolen as against Rs. 21,451 last year; while recoveries amounted to Rs. 11,469, giving a percentage of 47 as against 39 in the previous year.

II.—Rural Police.

The Village Police is still an unorganized force which is at times of considerable assistance to the District Police.

They were rewarded for good work in 143 cases, but were reported for failure to give due assistance in 434 cases, in 297 of which punishments were awarded.

III—Additional Police.

No additional Police was entertained during the year.

IV—Bombay City Police.

1. The strength and distribution of the Police force was the same as that for the year 1900. The temporary force referred to in last year's report was discontinued at the beginning of the year under report. Establishment.

2. The total number of punishments increased from 897 to 927. Of these 19 were inflicted by the Judicial and 882 by the Departmental authorities. Rewards were given to 220 members of the force and two Constables were recommended to the Royal Humane Society for reward. Conduct of Force.

3. Including the 102 cases pending from 1900, there were 23,571 cognizable offences for disposal, a decrease of 11,828 as compared with the figures for 1900 and of 8,689 as compared with the average for the past three years. This decrease is due to the fall in Police cognizable cases which declined from 30,013 in 1900 to 18,294 in the year under report. The decline is entirely in cases under the Police Acts, which exhibit a decrease of 10,493. The percentage of conviction in Police cognizable cases fell from 92·3 to 88·7. The number of arrests was 21,648 and of convictions 20,135, representing a percentage of 93 as compared with 94 in the previous year. Direct cases before Magistrates numbered 5,294, of which 4,675 ended in conviction, giving a percentage of 88 as compared with 89 in 1900. Cognizable Crime.

4. Non-cognizable cases totalled 8,365, of which 2,330 ended in conviction. Of these cases 2,040 were under the Indian Penal Code, the rest being under Class VI and miscellaneous offences. 10,777 persons were concerned in the above cases, of whom 2,588 were convicted. Non cognizable crime.

5. The total value of property alleged to have been stolen amounted to Rs. 3,61,451; of this amount 42 per cent. was recovered as against 46 in 1900. Stolen Property.

6. During the year the Department received 1,975 references of identification, and succeeded in tracing 434 as against 417 in the previous year. Criminal Identification Department.

7. The Coroner held 649 inquests during the year, 26 fewer than in 1900. Homicide cases numbered 10, suicide 110, the bulk of the remainder being accidental deaths. Inquests.

8. During the year 66 fires occurred in the City causing a loss of property estimated at Rs. 11,96,549. The figures for 1900 were fires 82, loss of property Rs. 1,74,722. Fires.

9. The number of licenses for the possession of arms was 527 against 506 in the previous year. Export, transport and import licenses declined by 459. Petroleum licenses increased by 451 to 768. Licenses under the Explosives Act numbered 175. Arms and Explosives.

10. The restrictions imposed in past years upon the embarkation of pilgrims at Bombay for the Hedjaz were continued. 1,426 returned from the Hedjaz *viâ* Bombay. During the year 5,782 subjects of the Native States of Gujarát and Káthiáwár were deported under the usual Police arrangements. Pilgrims and Mendicants.

V.—Aden Police.

Information as to the strength, cost and working of the Aden Police has been given in Chapter I of this Report.

VI.—Vagrants.

At the beginning of the year there were 9 vagrants in the male work-house. 79 were admitted during the year. Of this total 23 deserted and were not re-arrested, 12 were sentenced to imprisonment, 1 escaped from the work-house, 2 were deported to England, 2 were sent to a lunatic asylum, and the remainder discharged on finding employment. At the end of the year there remained 14 inmates in the work-house. Government Male Work-house.

One female was admitted into the female work-house. Female Work-house.

The total cost of the male and female work-houses, including charges in connection with the Vagrancy Act, amounted to Rs. 7,923 against Rs. 8,628 in 1900-01. Expenditure.

VII.—Wild Animals And Venomous Snakes.

A large increase occurred in the number of persons killed both by wild animals and snakes, the figures being 109 and 1,051, respectively, against 55 and 701 in the previous year. Deaths from snake-bite were most numerous in Ratnágiri (241), while the largest number of persons killed by wild animals in any one district was in Khándesh (20).

Of cattle 2,206 were killed by wild animals, while 291 died of snake-bite, the figures for the previous year being 1,894 and 91, respectively. The highest mortality was recorded in Kánara, where 680 cattle were killed.

Rewards to the amount of Rs. 3,017 were paid for the destruction of 1,208 wild animals including 43 tigers, 165 leopards and panthers, and 256 wolves. The total number of animals killed in the previous year was 1,167, for which Rs. 2,841 were paid in rewards. The number of snakes killed during the year was reported to be 13,855 as against 26,612 in the previous year; for these a sum of Rs. 130 was paid in rewards by Municipalities.

During the year, 513 new licenses to carry arms for the protection of crops were issued, which brought the total amount of licenses in force to 5,743, a decrease of 388 on the previous year's total.

4. Chemical Analysis.

The number of analyses made during the year was 4,840—by far the highest on record. The excess of 992 over the previous year's total was due to increases in the number of medico-legal examinations, of examinations of Government stores, and of goods for the Customs and A'bkári Department.

Of the 2,130 medico-legal examinations, 216 were cases of suspected human poisoning, and 155 of suspected cattle poisoning. Poison was detected in 87 and 108 cases, respectively, arsenic being responsible for 30 and 75 of these.

Of the 251 samples of potable water examined, 83 were classed as bad.

5. Criminal Justice.

(For details *vide* Appendices to the Annual Report on Criminal and Civil Justice and tables I—IV under III—Civil Justice and I to VI under IV—Criminal Justice appended to the Judicial and Administrative statistics of British India.)

Number and constitution of Courts.

1. There was no material change in the number and constitution of the Criminal Courts and of the Benches of Honorary Magistrates.

Number of offences.

2. The total number of offences reported declined from 296,256 to 171,823. The decrease was greatest in offences under the District Municipal Act, which fell from 108,326 to 48,272. Other noticeable decreases occurred in thefts (6,163), robbery and dacoity (585), receiving stolen property (309), mischief (593), criminal trespass (522), offences under the Salt Act, the Presidency Town Police Acts, and the Gambling Act. Murders declined from 221 to 173. Offences under hurt increased by 1,140 as also offences under the District Police Act (1,678) and breaches of Contract Act (1,007). There was one offence against the State.

Offences reported true.

3. The number of offences reported as true was 153,016 or about 89 per cent. of the total number of offences reported. In 1900 the percentage of true to false cases was 78. The proportion of true offences to population ranged from 1 to 30 in Bombay to 1 to 521 in Ratnágiri.

Number of persons involved in cases.

4. 190,749 cases were brought to trial involving 313,314 persons, of whom 43 per cent. (in 1900, 33 per cent.) were acquitted, 39 per cent. (in 1900, 38 per cent.) were convicted and 12 per cent. (in 1900, 26 per cent.) were under trial.

Miscellaneous cases.

5. There were 3,270 miscellaneous cases involving 5,182 persons. Proceedings for security for good behaviour and proceedings to prevent breach of the peace were taken against 3,042 and 617 persons respectively. Frivolous or vexatious accusations summarily dealt with numbered 456 and involved 530 persons.

Cases decided.

6. The total number of cases decided fell from 208,776 to 198,591. 133,638 were decided by the Stipendiary Magistrates, while Honorary Magistrates disposed of 34,536. Special Magistrates disposed of 49,094 cases. Of convicted persons 36 per cent. were tried summarily. The average duration of cases fell from 13 to 7 days.

Punishments.

7. 59 persons as against 68 in 1900-01 were sentenced to death. The sentence of transportation was awarded against 175 persons. The amount of fines imposed (Rs. 2,98,029) fell by Rs. 1,17,635 and the realizations from Rs. 2,93,304 to Rs. 2,49,282. The total number of whippings inflicted was 1,748 including 236 awarded to juveniles. The percentage of whipping to other punishments was 12·40 against 14·25 in 1900-01.

Appeals and revision.

8. Of the appeals decided during the year, 38 per cent. were rejected and in 33 per cent. the sentences were confirmed. The number of appeals preferred by Government was 38 against 28 in the previous year. Applications for revision numbered 2,082. The sentence was reduced in 89 cases and quashed in 250 cases. In 16 cases the sentence was enhanced.

Trials by jury.

9. The number of persons tried by jury and assessors fell from 883 and 3,210 to 512 and 1,832 respectively. In the Courts of Session, the verdicts of the juries were approved in 96 per cent. of cases against 98 in the previous year.

6. Prisons—Civil and Criminal.

(For details *vide* Appendices to the Annual Report on Bombay Jails for 1901-1902, and tables under V—Jails appended to the Judicial and Administrative statistics of British India for 1901-1902.)

Population of Civil and Criminal Prisons.

1. The total number of prisoners confined in the jails and lock-ups of the Presidency fell from 148,330 in 1900 to 101,191 in 1901. Of this number 1,250 were civil prisoners. The decrease was specially marked in the Central Prison at Ahmedabad, in the Dhulia District Prison and the House of Correction—the three jails which supplied the increase in the previous year. Female prisoners declined from 1,302 to 1,245. The percentage of number admitted to free population was 0·200 against a percentage of 0·307 for 1900 and of 0·208 for 1899.

Disposal of Prisoners.

2. Transfers of prisoners were less numerous by 1,176 than in the previous year, the special reasons ascribed in last year's report having ceased to exist.

3. During the year 17,979 prisoners were released on expiry of sentence and 2,197 under the remission rules, the figure for the previous year being 27,133 and 1,882 respectively. 184 prisoners were transported to the Andamans: 5 were released on account of sickness and 227 on other grounds. Nine convicts escaped and 37 were executed.

Habitual Criminals.

4. The number of habitual offenders recognised as such before conviction was 2,523 against 2,983 in the previous year, while 538 were identified as habitual offenders by the jail officials after admission. The ratio per cent. of habitual offenders to the total number of admissions was 17 per cent. as against 12 per cent. in 1900.

Punishments.

5. Offences by convicts punishable by Criminal Courts increased from 11 to 23, the increase being due to the larger number of escapes. The percentage of punishments to average daily strength rose from 82 to 104. The Superintendents dealt with 10,815 punishments, of which 74 per cent. belong to the minor class. Corporal punishments fell from 150 to 141, giving a ratio of 0·5 to the number of male prisoners admitted to the jails.

Convict Officers.

6. 1,014 males and 14 females were employed as prison officers. The number of punishments inflicted on convict officers increased by 156.

Financial Results.

7. The gross expenditure during 1901 amounted to Rs. 8,78,446 and the cost per head Rs. 73, against Rs. 10,44,733 and Rs. 71 in the previous year. The rise in the cost per head notwithstanding a smaller expenditure, is due to a smaller average number of prisoners confined in 1901, as also to compensation paid to contractors on account of losses in 1899-1900.

8. The cash earnings per head of the average number sentenced to hard labour rose from Rs. 5 to Rs. 10. The total cash earnings amounted to Rs. 1,07,566. Apart from the Dakhan and Sind extra-mural gangs, both of which were employed on remunerative work, the highest percentage was shown by the Yeraoda Prison.

Vital Statistics.

9. With a daily average strength of 11,987 prisoners confined in all the jails, there were 11,555 admissions into hospital. The daily average number of sick rose from 366 in 1900 to 405 in 1901, but the total number of deaths fell considerably from 836 to 419, the death ratio being 35 per mille of average strength. There was no cholera in any of the prisons: plague cases numbered 27 and deaths 13.

Yeraoda Reformatory School.

On the 1st January 1901 there were 129 boys in the school and 28 boys were admitted in the course of the year. During the same period 33 boys were discharged and one was transferred under the Testimony Act to the Court of the Second Class Magistrate, Tásgaon, for further trial. The total number remaining in the School on 31st December was 123. The average daily number was 124. For want of accommodation 21 applications had to be refused.

Of those admitted during the year, 20 had committed theft, 1 robbery, and 1 dacoity.

The number of offences by inmates of the Reformatory reported during the year fell from 29 to 19, most of these being trifling breaches of discipline.

No deaths occurred among the inmates of the school. The total number of cases treated in the school hospital was 75, against 66 in the preceding year, the increase being solely due to ague.

Enquiries made through the Educational Department regarding the avocation and conduct of discharged pupils elicited the following information:—Seven could not be traced, 3 were following the trade learnt by them while in the Reformatory, 2 had been re-convicted, 11 were maintaining themselves by service labour, 18 were reported as bearing good characters.

The cost of the Institution fell from Rs. 16,652 to Rs. 15,689. The net earnings of the factory and garden attached to the Reformatory showed a slight increase to Rs. 281.

7. Civil Justice.

Number and constitution of Civil Courts.

1. There was no material change in the number and constitution of the Civil Courts in the Presidency.

Number and value of suits.

2. The total number of suits instituted was 191,823 as compared with 169,557 in the preceding year. The increase of 22,266, which is attributed to the partial return to normal agricultural conditions, was distributed over all Courts except the unpaid Tribunals. The aggregate value of suits rose from Rs. 3,74,51,229 to Rs. 3,91,61,568. With the exception of a slight decrease in suits exceeding Rs. 10,000 in value, all classes of suits participated in the increase, particularly suits not exceeding Rs. 50 in value. The High Court and unpaid Tribunals alone showed a decrease in the value of suits.

Disposal of suits.

3. The total number of suits (193,892) disposed of was greater by 26,649 than in the preceding year. The percentage of contested suits remained as in the previous year at 27. The average duration of contested and uncontested suits declined from 179 and 76 days to 96 and 61 days respectively. The proportion of suits to population ranged from 1 to 35 in Bombay to 1 to 510 in Thar and Párkar. Miscellaneous cases numbered 21,923 against 19,399 in the previous year.

Appeals.

4. Inclusive of arrears the number of appeals for disposal numbered 8,099. Of these 3,925 were disposed of; in 1,822 the decree was confirmed; 886 were transferred to Courts in another province, or were not prosecuted. The average duration of appeals rose from 208 to 237 days. 168 miscellaneous appeals were disposed of and 73 were pending at the close of the year. The average duration of miscellaneous appeals was 143 days.

Applications for execution of decrees.

5. The number of applications instituted for execution of decrees and of disposals was 214,499 and 212,789 respectively. 484 applications were disposed of by transfer and 3,887 were dealt with under the Dakhan 'Agriculturists' Relief Act. 69 per cent. of the remainder proved wholly infructuous and in 12 per cent. satisfaction was obtained in full. The large proportion of infructuous applications is attributed to the necessity of keeping the decree "alive" and of preventing the issue of notice under Section 248 of the Civil Procedure Code. The total amount recovered in execution was Rs. 55,03,606 or Rs. 14,41,242 more than in 1900-01. In process of execution 973 persons were imprisoned and 2,788 were arrested without being imprisoned against 874 and 2,571 respectively in 1900-01. There were 2,695 sales of moveable and 4,824 sales of immoveable property. Applications for declarations of insolvency numbered 300 as against 294 in 1900-01; in 46 per cent. the applications were granted.

Receipts and expenditure.

6. The total receipts of all Courts improved from Rs. 36,86,984 to Rs. 40,65,879, while the charges fell from Rs. 47,01,089 to Rs. 46,85,099.

2.—Execution of Decrees of Civil Courts by Revenue Department.

The number of decrees referred to Collectors for execution was 4,967 as against 3,617 in the previous year. The increase was general, Sind alone showing a decrease. In five out of the six districts of the Southern Division the execution of Civil Court decrees was transferred to Collectors for the first time during the year under report. Inclusive of arrears 12,754 decrees were referred to the Revenue officers for disposal, out of which 4,067 were disposed of. 1,305 decrees were disposed of by mutual agreement, the judgment-creditors remitting 6 per cent. of their claims. In 1,096 cases or 37 per cent., houses or lands were sold in satisfaction of decrees.

The total area of land sold in satisfaction of decrees was 10,192 acres (135 acres of which was alienated land) bearing an assessment of Rs. 16,230. Inclusive of the mortgage lien, the price realized by the sale of these lands amounted to Rs. 3,75,732 or 23 times the assessment. The largest amount of land sold was in Khándesh where 5,815 acres of Government land were sold for Rs. 2,15,788 or 26 times the assessment. In Poona 314 acres of Government land were sold at a price equal to 57 times the Revenue demand. In Bijápur the price was as low as five times the assessment.

3.—Dakhan Agriculturists' Relief Act.

Including arrears of 5,025 suits, there were for disposal 19,233 suits, of which 14,208 were decided, 8,651 of these being under Chapter II. Agriculturists' suits numbered 3,498, of which 43 were decided *ex parte*, 1,035 compromised, and 1,634 contested. In 436 cases inquiry into the past history of the transaction was ordered under Sections 12, 13A and 71A, and resulted in an abatement of 28 per cent. in the case of suits under Section 3(*w*) and of 21 per cent. in the case of those under Section 3(*y*). The average duration of contested suits under the Act was less by 2½ months than under the ordinary law; in uncontested cases it was almost the same. The costs of litigation varied from Rs. 8 to Rs. 13 on a claim for Rs. 100. Out of a total of Rs. 2,56,954 claimed from agriculturists, Rs. 41,808 were realized with or without issue of process, and under conciliation agreements Rs. 79,033 out of Rs. 5,02,230 claimed. Immoveable property was sold in 116 cases and given in possession in 37 cases against agriculturists. Under conciliation agreements there were 153 sales and 112 deliveries of possession. Insolvency proceedings were taken in one case.

Village Munsifs disposed of 5,462 out of a total of 5,803 suits: 10 per cent. of these were decided *ex parte*, 26 per cent. were compromised and 15 per cent. contested. 30,340 applications, involving claims amounting to 32½ lákhs, came before conciliators, of which 26,606 were settled for 79 per cent. of the amount claimed.

Registration, especially of mortgage bonds, showed a decrease from 54,991 to 42,020 deeds. The value of land sold was Rs. 34,96,746 and mortgages Rs. 38,39,170. Of the sales, 1,916 real and 858 virtual mortgages were between agriculturists and non-agriculturists.

8. Registration.

1.—Registration under Act III of 1877.

Registration of deeds.

The number of compulsory registrations declined from 169,178 to 163,523, and that of optional registrations from 28,493 to 24,853. The decline may perhaps be attributed to the extension of the system of State Loans (Tagái) and to a slight improvement in the season.

Registration of wills and authorities for adoption.

The number of wills registered was 1,541 and that of authorities to adopt 2. The practice of making wills appears to be slightly on the increase.

Value of deeds registered.

The aggregate stated value of documents registered in 1901-1902 was Rs. 9,44,74,443. In 1900-1901 it amounted to Rs. 9,43,54,787.

Refusals to register.

Registration was refused in 732 cases, but on appeal 137 of the documents were subsequently admitted to registration.

Impounded documents.

Registering officers impounded 263 deeds on the ground of insufficiency of stamp, but 64 of these were subsequently released. Of the rest, 153 were held by Collectors to have been rightly impounded and 46 were awaiting disposal at the end of the year.

A new registry was opened from the 1st October 1901 for the district of Lárkhána in Sind. New office.

The system of taking thumb prints of illiterate executants was introduced from 1st June 1901. Thumb impressions.

Three Sub-Registrars were prosecuted under the provisions of the Indian Penal Code, but all three were acquitted. Thirteen persons were prosecuted for offences against the Registration Law. Of these 7 were convicted and sentenced. Prosecutions.

The gross receipts of the Department, Rs. 5,43,672, were less by Rs. 9,057 than the previous year's realizations. The expenditure in 1901-1902 amounted to Rs. 2,71,295 against Rs. 2,80,797. The net surplus was Rs. 2,72,377. Receipts and expenditure.

2.—Registration under Act XVII of 1879.

In the four Dakhan districts of Ahmednagar, Poona, Sátára and Sholápur in which the Act is in force, the total number of registrations was 116,906 against 143,837 in 1900-1901. The decrease of 26,931 transactions was shared by all the four districts. Instruments relating to immoveable property and those concerning moveable property were fewer by 24,111 and 2,820, respectively. Sales, mortgages, leases and other deeds relating to agricultural land were executed between agriculturists and agriculturists to the number of 49,961 and between agriculturists on the one side and money-lenders on the other to the number of 43,651. The corresponding totals for the previous year were 58,826 and 57,868, respectively. Registration of documents.

The documents of all classes registered during the year represented a value of Rs. 55,65,650 as compared with Rs. 68,11,953 in 1900-1901. Value of deeds registered.

The total receipts amounted to Rs. 41,662 and fell short of those for the previous year's realization by Rs. 8,930. The charges have decreased from Rs. 59,637 to Rs. 56,341. Receipts and expenditure.

The net financial result was a deficit of Rs. 14,679 exclusive of the cost of books and forms amounting to Rs. 3,730.

3.—Joint Stock Companies.

The year's record is one of decline in all directions. Eleven new Companies were formed, while sixty-one went into liquidation and 46 Companies were finally dissolved. The total number of Companies stood at 424 at the close of the year. The collapse of the Gujarát Provident Societies and the depression in the mill trade account for the decrease of nearly 100 Companies in two years.

The number of documents registered with the Registrar of Joint Stock Companies fell from 1,068 to 976. Fees realised under the Act improved from Rs. 7,404 to Rs. 8,659, giving, with an expenditure of Rs. 1,206, a net profit of Rs. 7,452.

Thirteen prosecutions were instituted under the provisions of the Act, convictions being obtained in twelve cases. A prosecution was instituted under the Penal Code against the Secretary and Manager of the Empire Mutual Helping Association (Limited) and ended in conviction.

9. Local Board Administration.

For details *vide* Appendices to the Local Boards Administration Report for 1901-1902 and tables Nos. 1—3 under XVIII—Local Boards appended to the Judicial and Administrative Statistics of British India for 1901-1902.

The number of District Boards remained at 23 and of Táluka Boards at 207. Of the combined total of 3,569 members of the District and Táluka Boards, 42 were *ex-officio* members, 1,928 were nominated and 1,599 were elected. In the Panch Mahás, the Peint Táluka of the Násik District, in the Kánara District (except the Kárwár Táluka), in parts of the Thar and Párkar District and in the Upper Sind Frontier District, the Boards were entirely composed of *ex-officio* or nominated members. Official members numbered 758 and non-official 2,811. New Boards were constituted in the districts of Kaira, Thána, Poona, Sholápur, Násik, Bijápur and Dhárwár. In the Ránebennúr Táluka of the Dhárwár District as many as 65 per cent. of persons entitled to vote exercised their privilege, but generally speaking there was little or no interest displayed. The number of meetings held by Local Boards was 346 in the Central Division, 345 in the Southern Division, 311 in Sind and 3,215 in the Northern Division. The average attendance varied from 7·7 in the Southern Division to 6·17 in Sind. General.

The aggregate income of the District and Táluka Boards was Rs. 44,38,843, against Rs. 40,84,873 in 1900. The increase was principally due to an improvement in the collections of the one-anna cess. The incidence of taxation varied from Re. 0-1-10 in the Southern Division to Re. 0-3-7 in Sind with an average for the Presidency and Sind of Re. 0-2-5, against Re. 0-2-2 in the previous year. Income.

Inclusive of opening balances there was available for expenditure Rs. 55,74,610. Of this sum Rs. 40,69,478 were actually expended during the year as against Rs. 40,62,938 in 1900-01. Expenditure.

The principal items of expenditure were:—Education Rs. 16,83,720 (in 1900 Rs. 15,12,908); Medical Relief Rs. 3,12,381 (in 1900 Rs. 2,41,999); Civil works Rs. 18,17,345 (in 1900 Rs. 17,06,763); Water-supply Rs. 1,59,924 (in 1900 Rs. 1,73,351). The expenditure on Famine Relief was inconsiderable (Rs. 5,285) and was incurred by the Dhárwár Board on the completion of the Navalgund Tank which had been started as a famine work.

The closing balance of the several Boards was Rs. 15,05,134.

10. Municipal Administration.

1.—Bombay Municipality.

General

1. The Corporation held seventy-five meetings and the Standing Committee fifty-two. There was no change in the constitution of the Corporation which was composed of 72 members.

Finance.

2. The revenue for the year amounted to Rs. 77,66,729 and the expenditure to Rs. 82,26,457. The deficit of Rs. 4,59,728 was met partly from the working cash balance which in consequence was reduced from Rs. 29,83,701 to Rs. 25,33,833 and partly from a decrease amounting to Rs. 9,860 in the monies locked-up in reserve stores.

Income.

3. Compared with the preceding year, the receipts for 1901-1902 showed a decrease of Rs 6,36,118, due partly to the reduction in the rates levied for general tax and for town duties on grain and firewood, and partly to the heavy refund of town duties.

Expenditure.

4. The expenditure showed a decrease of Rs. 3,57,600, which is attributed partly to the discontinuance of the levy of water charges on Municipal properties in the charge of the Health Department, and partly to the cessation of payment of grain compensation to Municipal employés.

Loan Expenditure.

5. Excluding expenditure on plague measures, the loan expenditure was Rs. 7,06,259 against Rs. 8,44,135 in 1900-1901. Of this total Rs. 6,34,573 were absorbed by sewerage and drainage works.

Plague Expenditure.

6. The charges on account of plague decreased from Rs. 6,80,425 to Rs. 4,43,616, in addition to which Rs. 52,754 were spent from the contributions received from Government for the construction of health camps and for discretional relief.

Debt and Sinking Fund.

7. New loans amounting to 17 lákhs were raised, while Rs. 87,700 were repaid to Government and the public. The capital debt of the Municipality was thus increased by Rs. 16,12,300 and stood at Rs. 4,60,17,060, of which Rs. 24,73,560 was debt due to Government and Rs. 4,35,43,500 to the public. The sinking fund was augmented by Rs. 5,25,334 and stood at Rs. 35,73,861 at the end of the year.

Taxation.

8. Excepting in the case of the General Tax, which was 2 per cent. less, of the Fire Tax, which was ¼ per cent. less than the maximum, and of the duties on grain and firewood, the maximum rates leviable under the Act were in force. The incidence of taxation per head of population was Rs. 8-9-6.

Works.

9. Besides the drainage and sewerage works referred to above, a sum of Rs. 1,08,113 was spent on miscellaneous drainage. Water-works maintenance charges absorbed Rs. 2,20,022, and Rs. 2,33,647 were spent on metalling roads. Gas lighting cost Rs. 2,25,108, while the net cost of kerosine oil lighting and lighting by electricity amounted to Rs. 32,054 and Rs. 10,550 respectively.

Water-supply.

10. The rainfall at the Vehár and Tulsi Lakes was slightly higher than in 1900-1901, but that at the Tánsa Lake was only 96 inches against 104 in the previous year. A new 4 inch main was laid to supply the buildings erected on the Improvement Trust Wellington Lines Estate.

Insanitary Buildings.

11. One hundred and forty-five houses and sheds were demolished under the Epidemic Diseases Act. Overcrowding in houses was abated in 181 cases. 926 notices were issued requiring house-owners to improve their buildings.

Fire Brigade.

12. Thirty-one fires were extinguished by the Fire Brigade out of 78 notified. The total loss of property was Rs. 11,25,000.

Public Health.

13. There was an improvement in the public health of the City, the number of deaths, exclusive of still-born, being 59,495 against 79,350 for the previous year. Deaths from plague numbered 18,736. The number of births was 13,520. At the three Municipal dispensaries 167,361 patients were treated.

Education.

14. With the opening of two Marathi and one Urdu school, the number of Municipal schools rose to 85 with an attendance of 7,235 pupils. There was an increase of 5 in the number of the aided schools, of which there were 95 with an attendance of 8,395. The income of the School fund was Rs. 1,40,721, of which Rs. 42,666 was contributed by Government and Rs. 80,000 by the Municipality, the remainder being realised in fees. The total amount paid to aided schools was Rs. 23,327, including a fixed payment of Rs. 5,000 to the Anjuman School. The balance of the School fund at the end of the year was Rs. 53,753.

2.—District Municipalities.

The number of Municipalities in the Presidency and Sind was 166, of which 4 were temporary Municipalities. In consequence of the reduction in the number of nominated councillors under the new Municipal Act, the number of councillors fell to 2,278.

The Municipality of Bassein continued under suspension, while the temporary Municipality at Máheji was not constituted. A new Municipality was constituted at Mirpur Khás, but did not begin to work till after the close of the year. The elective franchise was not extended to 39 Municipalities, of which 20 were in Sind.

2. The aggregate income of the Municipalities in the Presidency and Sind increased by nearly Rs. 8 lákhs to Rs. 67,18,404. The increase was general, but occurred chiefly in octroi receipts in Sind in consequence of the discontinuance by the Karáchi Municipality of the system under which imported goods were exempted from duty, provided they were exported within 15 days. The increases in the Central and Northern Division were in receipts under house-tax, water-rates and market fees. In the Southern Division similar increases were counterbalanced by a decrease of Rs. 8,067 in octroi collections, especially in the Dhárwár Municipalities. Of the total revenue of the Municipalities, Rs. 49,69,882 were realised in taxation, an increase of Rs. 9,85,279 on the previous year's figures. The incidence of taxation per head of population varied from Rs. 1-11-1 in Sind to Re. 0-13-9 in the Southern Division; and that of total income from Rs. 2-8-3 in Sind to Rs. 1-5-1 in the Southern Division. Income.

3. There was an increase of Rs. 3,88,957 in the expenditure. The largest decrease (Rs. 78,278) occurred in the Central Division under the heads of water-supply, police, and conservancy: but this decrease was more than counterbalanced by the increase of over Rs. 4 lákhs in the expenditure of the Municipalities in Sind. Refunds by the Karáchi Municipality amounted to Rs. 6,53,443, while the same Municipality also incurred large expenditure under water-supply and Public Works stores. In the Southern Division the chief fluctuations were a decrease in the outlay on markets and slaughter-houses, and an increase under "payment of Loans." The increase of Rs. 28,856 in the expenditure of the Municipalities of the Northern Division was distributed under the heads of water-supply and roads, against which must be set off a decrease in the outlay on drainage. Expenditure.

4. The total liabilities of Municipalities in respect of loans were at the close of the year Rs. 41,53,609. During the year a sum of Rs. 2,51,251 was repaid. The Thána Municipality, which had discharged its liabilities in the previous year, raised a fresh loan of Rs. 10,000, of which Rs. 4,000 were refunded during the year. Debt.

The opening and closing balances stood at Rs. 11,31,570 and Rs. 14,05,944 respectively.

3.—Bombay Improvement Trust.

Under the First Nágpáda Improvement Scheme, the acquisition of properties was pushed forward, the Board now owning 68,807 square yards of land acquired at a cost of Rs. 13,87,730. Four chawls at Agripáda were opened for occupation in August 1901, since which time out of a total number of 294 rooms available an average monthly number of 237 have been occupied. Progress of Schemes previously sanctioned.

Under Scheme No. II undertaken to provide a thoroughfare from Queen's Road to Carnac Road the Board has acquired 11,512 square yards of land at a cost of Rs. 3,02,580.

Working Plans have been commenced under Scheme IV for opening up the area between Chaupáti and Gowália Tank Road.

2. During the year Government sanctioned Schemes III and V. Under Scheme III it is proposed to drive a road from Queen's Road to Elphinstone Bridge. Scheme V is intended to provide a means of expansion of the City towards the northern parts of the Island. Schemes sanctioned.

3. One new Scheme (No. VIII) was notified during the year, *viz.*, the Mándvi-Koliwáda Improvement Scheme. The Colaba Reclamation Scheme (Scheme No. VII) was submitted to Government for sanction. Schemes notified.

4. The Revenue operations of the Board show a net credit balance of Rs. 4,41,258, receipts amounting to Rs. 8,27,326 against an expenditure of Rs. 3,86,068. The Board's capital account opened with a credit balance of Rs. 41,63,000 which by August 1901 had been reduced to Rs. 38,44,000. In September a loan of Rs. 30 lákhs to bear interest at 4 per cent. and having a currency of 60 years was raised. The year closed with a credit balance of Rs. 62,28,000. The expenditure on works from Capital Account amounted during the year to Rs. 13,90,148. Finances.

11. Military (Volunteering).

Camps of exercise were held by the Bombay Light Horse, the Bombay Volunteer Artillery, the Karáchi Artillery Volunteers, the G. I. P. Railway Volunteers, the Bombay Volunteer Rifles, the B. B. & C. I. Railway Volunteers and the Bengal-Nagpur Railway Volunteers. A grant of Rs. 3,112 was made to the Sind Volunteer Rifles. Volunteers.

12. Marine.

1. The number of European seamen shipped declined to 2,404 and of seamen discharged to 2,197. Deserters numbered 40 against a total of 29 for the previous year, while the number of seamen in jail increased from 33 to 47. Ten seamen died and 32 were admitted to hospital. There was a large decrease (5 against 65 for 1900-1901) in the number of distressed seamen sent home. Subsistence was given in the case of 32 seamen. There was a large decrease of Rs. 15,100 in the amount of wages deposited by European seamen with the Shipping Master; on the other hand, seamen's Money Orders increased by Rs. 2,584 to Rs. 6,392. Charges on account of distressed European seamen amounted to Rs. 972. European Seamen.

2. The total of native seamen shipped increased by 873 to 29,152, while those discharged totalled 25,909. 121 native seamen died, 7 were in jail and 45 were admitted to the hospital. Native Seamen.

The wages of deceased native seamen amounted to Rs. 6,593, and those of seamen in hospital to Rs. 2,087. Charges on account of relief to distressed native seamen rose to Rs. 728.

Finance. Fines for offences against discipline increased from Rs. 1,110 to Rs. 1,226. Registry Fees improved to Rs. 1,314. The gross Revenue improved to Rs. 58,101, while the expenditure was slightly higher than in the preceding year.

2.—Aden.

Shipping Office. Sixty-four European and 890 native seamen were engaged during the year as against 37 and 469 in the previous year; and 66 European and 716 native seamen were discharged against 50 and 437 in 1900-1901. Only one European seaman applied for relief. The receipts of the Shipping Office improved from Rs. 1,019 to Rs. 1,821.

3.—Bombay Port Trust.

Receipts and Expenditure. The gross receipts amounted to Rs. 55,59,184, the largest on record, and exceeded the expenditure by Rs. 2,98,514. Exports, chiefly of cotton, seeds, twist and yarn showed considerable improvement; while larger imports of piece-goods, iron, coal and oil counterbalanced the falling off in the imports of rice and food-grains. The Board's Revenue Reserve Fund was raised to Rs. 15,86,649.

Loans and Capital Expenditure. The Board raised a loan in June 1901 of 11½ lákhs. The expenditure on works chargeable to Capital amounted to Rs. 8,33,935. The principal works undertaken were the extension of the shed accommodation at the Victoria Dock, and the improvement of the Kennery Lighthouse.

4.—Karáchi Port Trust.

The year under report was the best on record, the receipts exceeding the expenditure by Rs. 1,64,104. The revenue nearly doubled itself, rising from Rs. 8,40,717 to Rs. 15,66,715, both exports and imports contributing materially to the increase. The Capital debt of the Trust was reduced by repayment during the year of Rs. 68,208. The reserve fund which had been trenched upon in the preceding year was recouped to the extent of Rs. 1,00,000.

Considerable progress was made in enlarging and deepening the channel forming the frontage of the wharves. Two additional sheds in the import yard were undertaken during the year: the "Giles" Dry Dock was completed and the construction of a native village at Keamari was pushed forward.

5.—Aden Port Trust.

With an increase in the value of trade amounting to Rs. 1,86,73,461, the total receipts of the Aden Port Trust improved by Rs. 70,980 to Rs. 3,76,289, the increase being mainly under the heads of "Port dues," "Toll dues" and "Pilotage fees." The expenditure advanced from Rs. 3,02,517 to Rs. 3,73,038, owing to the purchase of a new steam-tug for Rs. 81,219. The original scheme of dredging was completed, 518,000 tons of spoil having been lifted and deposited during the year. No original works were undertaken.

6.—Indus Conservancy Department, 1901-1902.

Snagging operations were carried on from Keti Bandar, at the mouth of the Indus, to Sita in the Western Nára District, a distance of about 300 miles. Special attention was given to the clearing of the Uchito mouth of the river, with a view to improving the fresh water supply of Keti Bandar by increasing the flow from the main river.

The river changed its course considerably above Laki. It moved 2 miles to the east from Bagatora. Several new bund loops have been found necessary on account of erosion in the Begári, Shikárpur, Western Nára and Karáchi Canal Districts. The Gudu Dhand, which supplies many canals in the Bahawalpur State and also many Government canals including the new Mahiwah, split into two and the supply was seriously affected.

The number and maundage of boats registered during the year were respectively 3,609 and 767,060 as compared with 2,517 and 687,634 during the preceding year. The river-borne traffic between Sind and the Punjáb was 1,613,641 maunds against 834,837 maunds in the previous year.

The receipts during the year amounted to Rs. 17,271 as compared with Rs. 17,688 in the previous year. This decrease occurred chiefly in the fees recovered from vessels plying on the Indus and was due to the fact that the North-Western Railway steamers did not ply during the year. The expenditure fell from Rs. 21,274 to Rs. 20,180.

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CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

1. Agriculture.

For details *vide* appendices to the Annual Report of the Director of Land Records and Agriculture and Tables Nos. 3, 4 and 13 (*f*) appended to the Agricultural Statistics of British India.

1.—Land Record Staff.

The Land Record staff were at work in all the districts of the Presidency proper. In the districts where famine was severe, duties in connection with relief works were substituted for their ordinary duties. In other districts the supervision of the preparation of record of rights was allotted to them. They also rendered assistance in the calculation of revised assessments. Two crop experiments were undertaken on rice and groundnut.

2.—Crop Areas.

Area under cultivation.

In the Presidency proper the net cropped area increased from 21,000,000 acres to 22,791,000 acres, or by 8·5 per cent. This area is however still short of that returned anterior to famine by about 1,500,000 acres, thus indicating that the recovery from famine conditions was far from complete. This was to be expected from the light and interrupted character of the rain and early cessation of the monsoon. The evils of the insufficient rainfall were further aggravated by ravages by rats and insects which did not permit fuller sowings of rabi crops in Gujarát and North Dakhan. Except in Broach, Kolába and Ratnágiri, which show a small diminution in area below the previous year, the increase is general, notably in the Dakhan Districts. In Gujarát the increase was 9·4 per cent., in the Dakhan 11·2 per cent., in the Karnátak 4·7 per cent. and in the Konkan 0·8 per cent. The net cropped area in Sind fell from 3,729,000 to 3,380,000 acres, or by 9·4 per cent., partly owing to the late rise in the river; but the area cropped in the previous year was abnormally large owing to an exceptionally good season.

Crops.

The area cultivated with different crops in the Presidency proper (including lands cropped more than once) rose from 21,447,000 acres to 23,403,000 acres, or by 9·1 per cent. Of the total increase 10·4 lákhs acres are credited to cereals and pulses, 5·4 lákhs acres to fibres and 3·42 lákhs acres to oil-seeds. The most noticeable increase under cereals appears under jowári (+ 9·7 lákhs acres), but the area under this crop, as well as under rice, wheat and the coarser millets, is still far short of the average anterior to famine. The area under bájri showed a contraction to the extent of 2 lákhs acres; but the area under the crop last year was exceptionally high. Among pulses gram showed an improvement of 1·1 lákhs acres, but the area is only 42 per cent. of that cropped in 1895-96. Among non-food crops, which form 19 per cent. of the total cropped area, the area under cotton improved by 5·1 lákhs acres and exceeded the average. All the oil-seeds show an improvement over last year's area, but the total area is only two-thirds of that returned in 1895-96. The total area devoted to crops in Sind fell by 3·61 lákhs acres or 8·9 per cent. Rice and wheat among cereals and cotton alone show a rise over the previous year. All the other crops show a shrinkage in area owing, as stated above, to short supply of water. The most noticeable fall appears under jowár, the area under which shrank from 8·05 lákhs acres to 5·41 lákhs, or by 32·8 per cent.

Irrigation.

In the Presidency proper the total area irrigated from all sources increased from 771,000 acres to 773,000 acres. The area under well irrigation showed a fall of 13,000 acres and that under private canals of 2,700 acres, but this was more than made up by increased irrigation from Government canals, tanks and other sources. The fall in irrigated area is most noticeable in the 3 Northern Districts of Gujarát and 3 of the Dakhan. There was practically no irrigation from canals in Gujarát and that in Khándesh, Násik and Sátára showed a considerable decrease. The area under well irrigation, also, was considerably curtailed in North Gujarát, Khándesh, Ahmednagar, Sholápur and Dhárwár; that in Poona, Belgaum and Thána on the other hand considerably improved. Under tank irrigation the increased area in Dhárwár and Surat more than made up deficits elsewhere. The area irrigated from other sources showed a large rise in Sholápur and Sátára. The diminution in well and tank irrigated area is generally attributed to want of sufficient water-supply due to scanty rains. The total area under different crops rose from 867,000 acres to 878,000 acres, or by 1·32 per cent. The area under wheat and other cereals and pulses fell by 27,000 acres, but this was made up by an equal increase under non-food crops. Sugarcane showed a rise of 13,000 acres principally in Poona, Násik, Sátára and Belgaum. The area under this crop is still short of that cropped previous to the famine. The area under fodder crops shrank by 3,700 acres. In Sind the irrigated area fell from 30·7 lákhs to 29·3 lákhs acres, or by 4·56 per cent. The area irrigated from canals fell by 2 lákhs acres, while that irrigated from other sources expanded by 63,000 acres. The area under wheat, rice, sugarcane and non-food crops improved to some extent, but the rise here was insufficient to make up the large fall under other cereals and pulses.

3.—Crop Experiments.

In order to enable officers to devote closer attention to the compilation of the record of rights the usual rules as to crop experiments were suspended. Accordingly no experiments were carried out in Broach, Khándesh, Ahmednagar, Sholápur and Bijápur, and elsewhere the programme of the season was carried out only to a limited extent. The total number of experiments conducted was 59, 23 being reported from the Northern Division, 14 from the Central Division and 22 from the Southern Division.

4.—Agricultural Experiments.

Poona and Manjri Farms.

Season. The season was favourable to kharíf crops, but the rabi rains failed and rabi crops had to be helped by irrigation.

Fodder experiments. Experiments were continued with jowár (*Sorghum vulgare*) with a view to finding out the varieties best suited for fodder and for grain. The Utavli variety when grown by itself yielded the best crop, while the yield of collier was highest when grown with túr. Mauritius water-grass gave a satisfactory yield, but the results with the guinea grass, Australian salt bush and *Paspalum dilatatum* (also an Australian fodder) were discouraging.

Other crops. Soybeans yielded a poor crop as also the varieties of Cassava or tapioca imported from Jamaica. Experiments with Rhea were discontinued, as the plant degenerates in the Dakhan. The results with American sweet potatoes were encouraging, but no definite conclusions could be drawn from the experiments with American maize, beyond that the sugar corn variety loses its sweetness in India. The imported varieties of groundnut were found to be less liable to the "tika" disease and to give a larger yield, especially in the case of the Japanese variety. In the bájri experiment, the yield of the Bhavnagri variety was high, while that of the Malbandro and the Poona vatieties was poor.

Sewage experiments at Poona. Experiments were tried as in the previous year to compare the value of effluent on garden crops with other manures. The results again showed that effluent produced superior yields.

Cross-fertilisation. Experiments in cross-fertilisation were introduced at the Poona as well as at the Surat farms. Wheat and cotton were selected, but no definite conclusions could be arrived at.

Sugarcane experiments at Manjri. Experiments with manures were conducted to determine their effect on sugarcane and their relative cost according to outturn. Experiments with different varieties of cane proved that the Mauritius varieties can be acclimatised and, like the Belgaum variety, are less liable to the attacks of sugarcane borer. Water experiments reaffirmed the conclusion that a much smaller quantity of water is required to grow the crop if obtained at regular intervals in the hot weather.

Sewage experiments at Manjri. These were continued but the outturn of gúl was for various reasons smaller than that from sugarcane treated with other manures.

Dairy and Dairy Herd. The herd consisted of 131 cows and 80 buffaloes. During the year 138 animals were sold. The Dairy worked at a loss of Rs. 697, the deficit being partly due to the rise in prices of food-grains.

Rinderpest Experiments. These experiments were undertaken to test the strength of the rinderpest serum required for the local breeds of cattle. In all 28 animals were operated on.

Financial Results. The Farm was worked at a loss of Rs. 4,748. These figures include Rs. 875 spent on rinderpest experiments. Sales of gúl realised Rs. 1,219.

Ganeshkhind Gardens.

The mango crop brought in Rs. 350 and the value of the grass consumed by the dairy cattle amounted to Rs. 1,108. The receipts exceeded the expenditure by Rs. 198.

Surat Farm.

The season was very unfavourable. The dry-crop experiments practically failed and in this failure some of the varieties of jowár, which were grown continuously for the past several years, have been entirely lost. With a view to avoid such losses in future two wells have been provided. As regards the irrigated crops it has been found that the soil of the farm is not suitable for growing expensive irrigated crops, and it has been now decided to devote most of the area to the cross-fertilisation of wheat. During the year 17 varieties of wheat and 7 varieties of cotton were cross-fertilised. At the end of the year the dairy herd contained 58 animals. The Farm was worked at a loss of Rs. 6,633.

The Northcote Gowshala.

At the end of the year the Gowshala contained 633 head of cattle. Seventy-nine castrated male calves were sold, of which 50 were purchased by His Excellency the Governor for distribution among some of the Pátidárs who had been hit hard by the famine.

Nadiád Farm.

The season was unfavourable. The rains ceased early and the crops were further damaged by rats and caterpillars. Experiments were made with tobacco and bájri from Vizagapatam (Madras). The results of the latter experiment were unsatisfactory.

The Farm was worked at a cost of Rs. 1,962, the sales of the Farm produce realising Rs. 514.

Miscellaneous Experiments.

The arrowroot plantation at Dápoli suffered from want of rain and only yielded one-fifth of the expected outturn. The coffee plantation at Ambewadi in the Kánara District yielded no results through lack of proper supervision. The Sabai grass cultivation carried on by the Deccan Paper Mills Company was affected by want of rain. Sabai grown as an irrigation crop was found to produce less flowering stalks.

5.—Advances to Cultivators.

The advances made under the Land Improvement Loans Act and the Agriculturists' Loans Act in each of the Districts of the Presidency, inclusive of Sind, during the past two years are specified in the following statement :—

Districts.	1900-1901.		1901-1902.	
	For purchase of Seed and Cattle.	For permanent improvements.	For purchase of Seed and Cattle.	For permanent improvements.
	Rs.	Rs.	Rs.	Rs.
Ahmedábád	8,71,069	47,290	6,09,660	90,202
Kaira	19,25,870	58,483	2,77,029	26,175
Panch Mahals	2,96,459	1,550	4,30,190	16,045
Broach	11,37,237	6,330	4,32,844	2,800
Surat	85,901	2,62,049	45,679	37,955
Thána	51,378	28,517	20,128	18,255
Násik	4,70,631	1,38,369	13,882	54,993
Khándesh	10,57,185	72,815	3,77,763	38,355
Ahmednagar	10,29,185	1,24,629	7,04,659	85,880
Poona	3,63,761	93,850	1,96,382	79,753
Sholápur	2,08,564	1,92,785	4,18,889	80,720
Sátára	2,04,271	1,80,660	1,26,338	1,31,865
Belgaum	1,06,873	1,65,850	1,39,968	1,51,154
Dhárwár	58,824	1,80,230	77,334	1,14,742
Bijápur	1,51,110	1,51,324	4,52,452	2,05,881
Ratnágiri	14,802	8,780	12,532	7,800
Kánara	3,564	6,500	5,491	3,782
Kolába	8,534	6,410	5,435	6,375
Karáchi	1,23,692	11,998	96,144	39,993
Hyderábád	44,300	12,649	60,180	38,176
Sukkur	20,125	15,344	35,044	64,436
Thar and Párkar	7,365	4,550	20,975	5,850
Upper Sind Frontier ...	1,000	10,000	22,185	33,775
Lárkhána	.....	.....	49,084	33,941
Total ...	73,41,700	17,80,962	46,30,267	13,68,903

The disbursements on account of loans for seed and cattle were higher than in the previous year in the Panch Mahals, the districts of Sholápur, Belgaum, Dhárwár, Bijápur, Kánara and in all the districts of Sind except Karáchi. Except in Ahmedábád, the Panch Mabáls, Bijápur and five out of the six districts of Sind, advances for permanent improvements were considerably less than in 1900-01.

6.—Agricultural Stock.

As returns referring to Agricultural Stock are only prepared quinquennially, reference should be made to the Administration Report for 1900-1901, in which the latest departmental report is incorporated.

7.—Horse-breeding.

Government Horse and Pony Stallions.

The number of stallions decreased from 47 to 44 (26 horses and 18 ponies), six horses having been struck off the register and three new horses having been added, including two English thorough-bred stallions. Six stallions were stationed in Gujarát and 38 in the Dakhan.

Horse-breeding.

The number of mares covered rose from 943 to 1,063. Coverings in Gujarát increased from 15·7 per cent to 24·1 per cent. of total. The total number of foals decreased from 405 to 284, the decrease being attributable to the unfavourable season conditions. The percentage of known produce to coverings was higher in the case of English thorough-breds (31) than in that of Arabs (25).

Mares branded.

356 animals were added and 1,840 struck off the lists of branded mares, the number at the end of the year being 2,638, or 1,484 less than in the last year. The decrease is attributed to the introduction of a more careful system of registering.

Eighty-four colts were castrated against 73 in the preceding year.

Castrations.

Purchase of Remounts.

218 country-bred remounts were purchased for the Native Cavalry and Remount Rearing Depôt, and 348 mules for the Supply and Transport Department.

Expenditure.

The cost of the Department decreased from Rs. 55,646 to Rs. 45,466 owing to savings in the sum provided for the purchase of stallions.

Horse-shows.

The only horse-show was held at Ahmednagar, at which 383 animals were shown as against 432 in the previous year. The quality of stock was well maintained.

Local Board Stallions.

The Hyderabad Local Board maintained an Arab stallion which covered 16 mares. Of the 23 mares covered last year, one foaled, 12 were "not held" and in 10 cases the result was not known.

2. Weather and Crops.

1.—Meteorological Department of Western India.

Number of Observatories.

There were 11 second class and 18 third class stations, the Poona Observatory having been reduced to the third class.

The year's work.

Observations were continuous except at Akola, Buldána, Abu, Chikalda, Sholápur, Belgaum, Jámnagar, Karáchi, Deesa and Kárwár. At the last-named place no record of pressure observations was possible for five months. The Bombay office, in addition, examined the logs of 883 vessels entering the harbour.

Note on the Meteorology of the Bombay Presidency for 1901-1902.

The feature of the monsoon of 1901-1902 was the heavy rainfall along the coast as far up as Bombay and the deficiency in the Deccan and Gujarát.

On the 6th of June a small cyclonic storm appeared off the Malabár Coast and travelled northward past Bombay and broke up on the Káthiáwár Coast on the 11th, having given fairly heavy rain along the coast, but none in the interior. During the rest of the month the monsoon current was weak, and rain was chiefly confined to the West Coast, only occasionally extending thence inland. Practically no rain fell in Gujarát, Káthiáwár or Sind. In July rain fell during the first week at the coast stations, but practically none in the interior. From the 8th onwards, fairly general rain fell throughout the Province, though the fall was considerably below normal in Gujarát and Káthiáwár. In August the monsoon current continued weak; rainfall was about normal over most of the Province, but below normal in Káthiáwár, and much below in Sind, where there was practically no rain at all. In September the monsoon began to withdraw much sooner than usual, temperature was unusually high during the latter half of the month in Gujarát, Khándesh and the Dakhan; no rain fell in Sind, and extremely little in Gujarát, Káthiáwár and Cutch, the Konkan or Khándesh. In the Dakhan rainfall was about normal owing to the considerable number of thunderstorms.

The record for the whole year in the Presidency shows that while the rainfall in the South and East Dakhan and on the West Coast was from 10 to 17 per cent. in excess of normal, it was from 45 to 70 per cent. in defect in Sind and Gujarát, and from 2 to 12 per cent. in defect in the Konkan and West Dakhan.

Storms.—On the 24th and 25th April 1901, a cyclonic storm appeared in the south-east of the Arabian Sea about latitude 6½° N., longitude 73½° E., and worked steadily in a north-easterly direction towards the Arabian Coast till latitude 16° N., longitude 58° E., when it turned in a north-easterly direction, crossed the Mekran Coast somewhere near Ormara on the 4th May, and travelled thence rapidly up the Indus Valley where it gave a considerable amount of rain.

2.—Notes on the Weather at Bombay in the Year 1901-1902.

Rainfall.

The south-west monsoon rains began on the 7th June and ended on the 12th September. The rainfall for the year was 74·58 inches, only 0·58 inch below the normal of twenty-four years. The wettest day of the year was 13th June when 6·55 inches were recorded. The rainfall for June and July was 12·56 inches in excess of the normal and that for September and October 11·79 inches in defect of the normal. The amount of unseasonable rain during the year was 0·04 inch on 28th April, 0·01 inch on 5th May and 0·39 inch on 16th, 17th and 22nd October.

Temperature.

The mean temperature of the year was 80·4°, being 1·0° above the normal. The highest hourly temperature recorded was 96·3° on 9th June, and the lowest was 65·3° on 1st February. The highest mean daily temperature was 87·4° on 5th June, and the owest was 72·1° on 1st February.

Wind.

The mean hourly velocity of wind for the year was 10·2 miles as against an average of 11·8 miles. The greatest mean hourly velocity in one day was 27·4 miles on 10th June, and

the least was 4·7 miles on 23rd February. The greatest recorded hourly velocity during the year was 42 miles on 10th June, while the velocity of a single gust of wind reached as much as 52 miles per hour.

3.—The Maha'ra'ja Takhtasingji Observatory, Poona.

Sun-spots observations were taken on all available occasions and were forwarded to Sir Norman Lockyer. 500 Stellar Spectrograms were taken with the Cooke Spectograph.

4.—Cola'ba Observatory.

The usual record of seismic, magnetic and astronomical work was continued throughout the year. One magnetic disturbance denominated "great" was registered, as also 33 earthquakes and 655 small and local movements.

5.—Season and Crops.

The following table shows the distribution of the rainfall at the various head-quarter stations in the Presidency proper :—

District Head-quarter.	Year ending 31st December				
	Average of eleven years ending 1897.	1900.		1901.	
		Fall.	Rainy days.	Fall.	Rainy days.
	Inches.	Inches.	Nos.	Inches.	Nos.
I.—Gujarát.					
Ahmedabad	32·29	16·78	26	19·16	25
Kaira	37·48	21·98	29	17·75	22
Godhra (Panch Maháls)	40·85	32·73	45	24·89	26
Broach	42·78	3·.80	35	22·11	21
Surat...	46·02	34·19	36	18·45	26
II.—Dakhan.					
Dhulia (Khándesh)	26·22	13·88	25	18·91	31
Násik	30·06	32·98	44	16·79	42
Ahmednagar	23·68	17·85	27	17·36	32
Poona	35·10	30·56	42	30·18	56
Sholápur	28 58	18·93	36	24·92	38
Sátára	44·63	43·47	51	37·66	70
III.—Karnátak.					
Belgaum	51·36	63·50	68	55·96	92
Bijápur	25·63	13·74	32	20·30	33
Dhárwár	33·74	31·21	61	34·17	79
IV.—Konkan.					
Alibág (Kolába)...	94·49	80·01	79	83·39	80
Ratnágiri	101·97	95·92	89	78·62	90
Kárwár (Kánara)	122·57	131·17	99	130·53	96
Thána	105·93	89·61	86	100·74	93

6.—Anna Valuation of Crops.

The following table gives the reported anna valuation of the outturn of the principal crops sown in each district last year, 12 annas representing the value of a normal crop :—

No.	District.	Average anna valuation.									
		Jowári.	Bájri.	Paddy.	Wheat.	Kodra.	Rági.	Vari.	Tur.	Gram.	Cotton.
	I.—Gujarát.										
1	Ahmedabad	3	7	4	3	2	1	3	1	2	3
2	Kaira	3	7	2	4	4	4	5	3	...	3
3	Panch Maháls	4*	4	1	...	2	2	...	...	...	5
4	Broach	6	6	1	1	1	...	...	3	...	5
5	Surat	7	7	7	4	8	8	...	5	...	7
	II.—Dakhan.										
6	Khándesh	9	7	5	3	4	4	8	6	3	8
7	Násik	4	5	11	5	...	9	8	6	6	5
8	Ahmednagar	5	6	3	6	3	2	4	4	4	6
9	Poona	7	7	9	6	6	6	6	5	4	4
10	Sholápur	7	6	3	5	2	2	3	5	4	2
11	Sátára	7	8	11	6	8	7	9	8	4	8

No.	District.	Average anna valuation.									
		Jowári.	Bájri.	Paddy.	Wheat.	Kodra.	Rági.	Vari.	Tur.	Gram.	Cotton.
	III.—Karnátak.										
12	Belgaum	7	5	12	6	6	6	8	6	5	5
13	Bijápur	5	3	3	1	1	2	1	3	2	4
14	Dhárwár	10	7	10	5	5	9	9	7	7	10
	IV.—Konkan.										
15	Thána	6	6	10	10	8	7	7	7	8	...
16	Kolába	...	..	11	...	9	9	9	9	8	...
17	Ratnágiri...	...	...	9	...	6	7	5	8	12	...
18	Kánara	...	...	10	...	...	6	...	...	...	...
	Sind.										
19	Karáchi	8	7	6	4	...	7	6	...	...	...
20	Hyderabad	8	8	6	8	...	...	...	...	7	8
21	Sukkur	7	7	7	7	...	...	...	...	7	8
22	Lárkhána...	8	8	9	6	...	...	...	...	6	6
23	Upper Sind Frontier ...	7	7	8	6	...	8	9	...	6	8
24	Thar and Párkar... ...	7	2	7	8	...	...	...	...	...	10

* Maize.

The light and intermittent character of the rain and the early cessation of the monsoon reduced the outturn of kharif and rabi crops generally. In Gujarát and North Dakhan, moreover, the crops suffered extensively from damage by rats and insects. Rice was lost over a large area in Gujarát and the other crops also did not fare much better. In the Dakhan and the Karnátak the season was somewhat better though in no case did the outturn approach the normal standard, except rice which yielded well in Násik, Sátára and the Karnátak Districts. In Sind the inundation was low and the crop yielded only a moderate outturn.

7.—Prices.

Prices on the whole were a little easier than in the previous year, but still remained considerably above normal. Among food stuffs, bájri and jowári sold dearer in the Northern Division, but were generally cheaper elsewhere. Wheat and rice were cheaper all over the Presidency and Sind. Cotton was cheaper in Khándesh and Surat. There was an advance in the price of pepper and betelnuts: but cardamoms sold cheaper than in 1900-1901.

8.—Wages.

There was practically no variation in the rates of wages for skilled and unskilled labour, the average rate being 6 annas to Re. 1 in the Presidency for skilled labour and 2 annas to 5 annas for unskilled labour. In Sind the rates averaged annas 12 to Re. 1-4 for skilled labour and annas 4 to annas 8 for unskilled.

3. Horticulture.

Public Gardens.

Bombay Municipal Gardens.

The Bombay Municipality maintained 9 public gardens at a cost of Rs. 57,684. Increased accommodation was provided at the Victoria Gardens for wild fowl, and various improvements were introduced in the nursery. The number of visitors at the gardens decreased from 1,653,639 to 1,370,223.

Empress and Bund Gardens.

The Empress and Bund Gardens, Poona, remained under the management of the Agri-Horticultural Society of Western India. The total expenditure on account of both gardens was Rs. 14,676 and the receipts Rs. 14,237, the deficit being met from a grant by Government. The sales of seeds, cut flowers and plants continued to show a large increase, but there was a decrease in the income from fruits and vegetables. The term for which the Empress Gardens were handed over to the management of the Agri-Horticultural Society expired in the current year.

4. Forests.

1.—Northern Circle.

Area.

There was an increase of 213 acres in the area of reserved forest and a decrease of one acre in that of protected forest.

Boundaries.

Clearance of the outer boundary of forests was effected over 227 miles in the Thána Division and over 11 miles in Surat. Cairns were erected along 238 miles in Thána, 99 miles in

Surat, 44 miles in the Panch Mahâls, and 130 miles in the Dángs. The total cost of these operations, including that of repairs to existing cairns, aggregated Rs. 8,916.

266 coupes measuring 14,108 acres were marked out in the Thána District for exploitation at a cost of Rs. 463. Working Plans.

Prosecutions before Magistrates numbered 166 against 241 in the preceding year. The percentage of convictions rose from 80·7 to 84·3. Compounded cases numbered 633 or 105 more than 1900-1901, the compensation recovered amounting to Rs. 1,070 against Rs. 1,173. The number of cattle impounded rose from 3,986 to 6,363. Forest offences.

The cost of fire-protection rose from Rs. 11,564 to Rs. 15,043. The area actually protected was curtailed by 27,997 acres. Forest fires.

The value of free grants of timber fell from Rs. 5,993 to Rs. 3,988. Free grants of Timber.

Artificial reproduction was successful in the Bulsár and Chikli ranges of Surat and fairly so in the Panch Mahâls and Central Thána Divisions. The total expenditure under this head amounted to Rs. 2,859. Plantations.

The revenue during the year was Rs. 4,31,434 as compared with Rs. 4,92,458 of the year 1900-1901 and the expenditure amounted to Rs. 3,09,607 against Rs. 3,11,470 of the previous year. Financial results.

A sum of Rs. 10,069 was expended on the construction and repairs of buildings. Communications and buildings.

2.—Central Circle.

During the year 1,199 acres were added to reserved forest, and a small area of 2 acres was excluded from protected forest. 11 sq. miles 383 acres were awaiting settlement inquiry. Area.

13,908 cairns were erected along 261 linear miles at a cost of Rs. 1,945. Demarcation with a continuous ditch and bank was effected over a length of 5 miles at a cost of Rs. 161. Boundaries.

The free grazing concession granted in the previous year was continued throughout the year under report. Free grazing.

During the year Government sanctioned Provisional Working Plans for Chopda, Ráver and Yával Sátpuda forests, for the Transpurna bábul forests of East Khándesh and for the bábul forests of the Poona Division. The field establishment laid out on the ground 313 compartments aggregating 25,704 acres at a cost of Rs. 1,469. Working Plans.

1,183 prosecutions were initiated before Magistrates, in 85 per cent. of which convictions were obtained. The Divisional Forest Officers compounded 4,819 cases for a sum of Rs. 14,007. 131,661 cattle were impounded during the year against a total of 146,594 for the previous year. Forest Offence.

During the year 24 per cent. of the area under forest was traversed by fire, representing an increase of 17 per cent. over last year's figures. Forest Fires.

The exceptionally dry hot weather had a prejudicial effect on young plants. Artificial reproduction was carried on over 17,809 acres at a total cost of Rs. 22,292. The Central Nursery at Mánjri showed successful results and raised 7,836,370 plants. Plantations.

Seven roads were under construction through the agency of the Public Works Department. Rs. 3,689 were spent in repairs to buildings. Communications and Buildings.

Timber to the value of Rs. 2,651 was given in free grants, against a total of Rs. 2,739 in the previous year. Free grants.

The revenue and expenditure for the year of report, inclusive of the figures for the famine fodder operations, amounted to Rs. 2,86,224 and Rs. 4,97,822, against last year's totals of Rs. 6,61,839 and Rs. 7,49,108. Excluding these special items, the realizations for 1901-1902 reached a total of Rs. 2,85,821 and the expenditure Rs. 4,90,789, the figures for the previous year being Rs. 29,799 and Rs. 5,24,831, respectively. Financial results.

3.—Southern Circle.

There was an addition of 215 sq. miles to reserved forest due to the conversion of the protected Siddápur Range (Kánara) into reserved forest. The area of protected forest decreased by 460 sq. miles due to rectification by the Forest Settlement Officer in the Kánara District. Area.

Boundaries were erected along 901 miles in the Belgaum, Dhárwár, Bijápur and Kolába Divisions. Demarcation by zinc plates was effected over 172 miles of the Kánara Forests. Rides 17 miles in length were cleared of tree growth in Kánara. The total cost of these operations was Rs. 8,203. Boundaries.

Surveying of fuel areas of 48,201 acres of the Kánara and Belgaum forests was effected during the year at a cost of Rs. 7,746. Working Plans.

Assignment of Lands. Assignments of dalhi lands in the Kolába District were made to the extent of 11,767 acres at a cost of Rs. 6,526.

Forest Offences. Prosecutions before Magistrates numbered 357 against 430 in 1900-1901. The percentage of convictions fell from 80 to 78. 1,090 cases were compounded at a compensation of Rs. 3,024, or Rs. 1,052 less than in 1900-01. Cattle impounded numbered 17,726, against 27,304 in the preceding year.

Forest Fires. The area under fire protection was increased by 43 sq. miles. The area burnt rose from 49 sq. miles to 62. The cost of protective measures amounted to Rs. 18,073, against the previous year's total of Rs. £4,000.

Free Grants. The value of free grants of timber amounted to Rs. 8,716 as compared with Rs. 10,082 in the previous year.

Plantations. Artificial regeneration was no more successful in 1901-1902 than it had been in previous years. Natural reproduction by coppice produced satisfactory results.

Financial results. The receipts increased from Rs. 11,86,975 to Rs. 13,01,985 consequent on large sales of timber from depôts. Expenditure decreased from Rs. 8,12,100 to Rs. 6,99,119 owing to curtailment of felling in the Supa Working Circle.

4.—Sind Circle.

Area. The area of reserved forest increased from 1,073 square miles to 1,075. There was no change in the area of protected forest.

Action of the river. The action of the river resulted in a net loss of 3,187 acres by erosion, the Hyderabad and more particularly the Naushahro Divisions being specially affected. In Sukkur and Jerruck the gain by accretion was 7,936 acres.

Working Plans. The working plans report of the Hyderabad Division was sanctioned by Government. The field establishment which was at work in the Sukkur Division marked off 115 coupes aggregating 8,831 acres at a cost of Rs. 4,307.

Demarcation. Demarcation was completed over a length of 8 miles, while 16 miles of previously demarcated area were checked.

Ride cutting. Ride cutting was completed over a length of 95½ miles at a cost of Rs. 752. One hundred and twenty-one miles of compartment cutting was effected during the year.

Boundaries. 16,537 boundary marks extending over a length of 1,484 were erected at a cost of Rs. 3,662.

Forest Offences. Criminal prosecutions numbered 66, of which 55 per cent. resulted in convictions. The Divisional Officers compounded 331 cases for a sum of Rs. 504. Cases of illicit grazing dropped from 1,087 to 924 and the amount received in compensation fell to Rs. 715.

Forest Fires. The area traversed by fire was 1,298 acres, showing a small increase over the previous year's total of 902 acres.

Reproduction. Artificial reproduction was retarded by the deficiency in inundation. Fair results were obtained in the tracts that were inundated.

Free Grants. Free grants of timber to the value of Rs. 375 were made during the year.

Financial results. The year's receipts (Rs. 3,34,739) show an improvement of Rs. 66,650 over the preceding year's totals. The total expenditure advanced to Rs. 1,63,892, the increase being mainly under "Conservancy and Works."

5. Mines and Quarries.

There are no mines and quarries of any importance in this Presidency. Four licenses to prospect for gold and one mining lease for the same mineral in certain villages of the Dhárwár District were granted.

6. Power Industries and Handicrafts.

The progress of power industries in the Presidency renders it desirable to divide a description of the manufactures of the province into two parts, the first dealing with factories and the second with hand industries.

Power Industries.

1. There are now 390 factories, within the meaning attached to the term in the Factory Act, at work in the Presidency. Of these by far the greater number are engaged in the preparation and manufacture of cotton. Thus 179 factories are devoted to the ginning, cleaning and pressing of raw cotton, while 131 mills produce yarn, cloth and hosiery, mostly from the lower counts of yarn that can be spun from indigenous cotton. The industry is centred in Bombay town and island which contains nearly two-thirds of the mills. The other centres of importance are Ahmedábád and Khándesh.

2. During recent years the mill industry has passed through a period of extreme depression, due in part to the dislocation of trade incidental to wide-spread plague and famine, and in part to a failure in the Chinese demand for yarn. On the whole period, however, there has been a very marked expansion of the industry as well as a noteworthy improvement in the class of goods produced, which now include fine cloths manufactured from imported high count yarns, and coloured as well as fancy goods of a superior description. After the cotton industry with its 310 factories, iron and brass foundries numbering 16 come second. No other industry has progressed as far as double figures, but many are represented by a few factories, the bulk of them being engaged in flour grinding, printing, the production of railway material, and the manufacture of silk or woollen goods. These factories employ a population of 150,000 with 10,000 dependents who are very largely recruited from the districts of Ratnágiri, Kolába, Ahmednagar and Sátára.

3. It is of interest to note that in the last ten years the factories have increased from 253 to 390, or by a percentage of 54, in the face of a succession of disastrous years. Cotton.

Handicrafts.

1. In the Bombay Presidency many years of competition between machine-made and hand-woven cloth have left a very considerable home industry, the hand loom being at work in almost every district of the Presidency; and though the kinds of fabrics woven are limited, the output of the hand looms being for the most part confined to the sáris and turbans for which this part of India has so long been known, with a certain quantity of grey cloth of the very coarsest kind, there still seems to be sufficient vitality in the industry to preserve it for many years to come.

The production of cotton fabrics in Western India is of three descriptions. Firstly, as noted above, there is the outturn of the mills and hosiery factories, of which the greater number are situated in Bombay Island. Next in importance is the work of the hand-weavers residing in all districts of Bombay, including Sind, with the sole exception of the Panch Maháls. Thirdly, the jails produce hand-woven fabrics, mostly superior in texture to similar cloths from the hand looms of voluntary workers. Several classes of fabrics are only produced in jails. Broadly speaking the yarn in nearly all cases is machine-made, the coarser counts being obtained from the local mills, and the finer counts imported from England. Hand-spinning is not yet extinct, but it is rarely relied on by professional hand-weavers for their supply of raw material.

The number of hand-workers employed in the Presidency is 178,000 with 137,000 dependents. A monograph published in 1897 gives particulars of the various classes of goods manufactured on country looms, and the method of manufacture as well as the names of the various local centres of the industry. The product of the looms includes sáris, khanas, kirgis, rumáls, vastrás, susa, padams, jamkhanas and khádi cloth. Pagaris, uparáns and lungis are made with finely worked ends or borders. The districts of Poona, Násik, Sholápur, Dhárwár and Belgaum are noted for weaving, but the highest point of excellence is reached in Ahmedábád and Surat, where some of the most skilful weavers in India are to be found. In the manipulation of designs woven into the cloth they are on a level with the best workers of Madras. The future of the cotton industry, as numerically by far the most important of the hand industries of the country, deservedly occupies much attention. It is clear that the locally made cotton fabrics come into contact, in the market, with an immense import of machine-made goods. With regard to the cloth woven in jails the extent of the import trade is immaterial. The jail production is inconsiderable, and is only intended to occupy the time of the prisoners. On the other hand there are grounds for believing that in the case of the hand looms, the effects of competition with English goods have already been fully experienced and that the imported fabrics forced the hand-workers to fall back on their present class of manufactures before the expansion of the local power industry commenced. The imported goods stand on a special footing with reference to the products of the local mills. The latter hold a practical monopoly of yarns up to 24s and woven goods not containing counts over 32. The increased production of the local mills appears mainly to have supported an export trade. The development which the industry is undergoing is chiefly a development for the supply of foreign markets. The future depends on the experiments now being undertaken to grow fine staple cotton in India. For the hand looms there is little change to be anticipated. Much might be done to improve the knowledge and the implements of the workers. But the few fabrics for which the workers still hold a reputation will probably continue for many years to be in steady demand.

2. Dyeing both of yarn and of cloth is carried on wherever sweet water can be found The water of Kaira has a special reputation. In the north of Gujarát the favourite colour is red, and in Káthiáwár red, deep brown, and yellow. Blue and green along with red and yellow are more prevalent in South Gujarát and in the Maráthá districts. Besides village dyers about 1,200 persons are employed in three steam dyeworks in Bombay and in one in Ahmedábád, which turn out yearly goods (chiefly turkey red) to the value of 30 lákhs of rupees. The old native vegetable dyes have been superseded by alizarine and similar colours. These new dyes, though cheaper, more easy to apply, and quicker in taking effect, at their best are often harsh and glaring and soon fade. Dyeing.

POWER INDUSTRIES AND HANDICRAFTS.

Printing.

3. In the Gujaráti-speaking districts printed cotton goods are extremely popular, whereas Maráthás usually wear plain stuffs of cotton only or of cotton and silk, dyed in the thread, and decorated with metal-leaf, or with a simple border and a fringe (*padar*) of a different colour at one end. In Gujarát few places of importance are without streets of Chhápadias or Bhausáras, cotton-printers, whose work is better in proportion to their distance from the railway, which, in the chief towns, has enabled the cheaper and more brilliant Europe cotton goods to undersell the native manufactures. The Sind cotton-printers are the most skilful and tasteful in the Presidency, and those of Dhárwár rank second. Both in Sind and in Dhárwár the goods decorated are large sheets (*razáis*), used as bed-coverings, wall-hangings, and floor and ceiling cloths, and sometimes as clothing in cold weather. The best cotton robes (*sáris*) are printed in Ahmedábád and Surat. Broach comes next and Baroda last. These goods are largely exported to Káthiáwár from Ahmedábád and to a less extent from Surat. Numbers of calico printers are settled in Bombay City and turn out work of fair quality, which is popular among the Musalmáns of the Dakhan and Konkan. They get their materials from the Bombay mills.

Knotting.

4. Chundari or Knotting is another method of decorating cotton and silk goods. The design is first sketched, or printed in outline, on cloth which has been once dyed. Parts of the cloth are picked up and a thin thread twisted round them, a small projection being generally left in the centre. The cloth is then dipped in a dyeing vat of a colour different from that applied in the first instance. When dry, the threads are removed, and the parts previously protected by the threads are exposed in the original colour, the variety thus produced adding much to the value of the cloth. Sind, Cutch, Káthiáwár, north Gujarát, Baroda, and Bombay give employment to a large number of Chundari-workers. Káji Mula Street near Nal Bázár is the centre of the industry in the Presidency town, but the work is carried on in several other places.

Woven Goods.

5. Various robes (*sáris*), bodices (*cholis*), waistcloths (*dhotars*), and turbans are manufactured for the Maráthá castes. Some are all cotton or cotton and silk, some cotton and silk with gold or silver thread, some silk with gold or silver thread. Ahmedábád, Yeola, Ahmednagar, Málegaon, Násik, Poona, and Dhárwár are all famous for their cotton goods. In the more costly fabrics Ahmedábád and Yeola work is superior to any. Poona is celebrated for good substantial plain *sáris* as well as for those of richer material; but many of the artisans of these places have been driven out of the market by cheaper European manufactures. The Bombay hand-loom weavers, a large proportion of whom are Musalmán Juláhás from the North-West Provinces, turn out cheap cotton goods of all sorts to suit the taste and customs of people whom the railways bring to the city from all parts of India.

Carpets.

6. Cotton carpets, rugs, horse-cloths, towels, and napkins are manufactured at the jails in Sind and throughout the Presidency. Ahmednagar, once celebrated for the strength and durability of its carpets, has lost much of its trade, but recently attempts have been made to revive it.

Silk.

7. The raw material used in the silk manufactures of the Presidency is imported from China, Bengal, Persia or Bangalore either in the cocoon, or in skeins, raw or dyed. Silk goods are manufactured in Ahmedábád, Surat, Yeola, Násik, Thána, and Bombay, the material being often decorated with printed or woven designs, knot-work or embroidery, and prepared chiefly for *sáris*, brocades (*kinkhábs*), trouser stuffs, and turbans. As a rule printed silk is most worn in Gujarát, and plain dyed silk in the Maráthá districts.

Brocade

8. Brocade or *kinkháb*, the richest woven fabric produced in the Presidency, is either all gold thread and silk, or silver gold and silk. The various patterns and qualities are distinguished by different names. The *kinkhábs* of Ahmedábád and Surat find a ready sale in all parts of India. Yeola, Poona and Násik have also a great reputation for silk or cotton *sáris* with woven designs, finished with rich gold or silver and silk borders. The Bombay silk is sold chiefly to the people of Gujarát and Upper India for petticoats (*ghágrás*) and bodices (*cholis*). The brocades known as *kinkhábs*, *nenrus*, *musrus*, *lapás*, and *tás* are used for robes, bodices, waistcoats, turbans, shouldercloths and sashes. The *chundari* and printed stuffs are worn by the high caste Hindu women of Káthiáwár and Gujarát, as also by Memans, Khojás, Bohorás, and other Muhammadan women of Gujarát origin. Owing to the competition of European goods most branches of the industry are declining. Even in Ahmedábád the increase in the popularity of English-made robes is notable.

Wire-drawing.

9. In preparing the gold and silver thread which is so largely used in the silk industry, the metal is first drawn out into a wire, of which one rupee's worth of silver will yield 2,000 yards. This wire is generally twisted with silk before being used in the loom; but in making the fabric known as *tás* the wire is beaten flat and forms the warp to a woof of thin silk or cotton thread. This gold and silver thread is largely used in ornamental edgings for *sáris*, the richest of which are made in Poona and Yeola. In Bombay also gold and silver thread are used for making lace, but everywhere imported thread is displacing the locally made article.

Embroidery.

10. Embroidery on silk and cotton cloth in gold, silver and silk thread is produced at Hyderábád in Sind, chiefly for the European market. Caps, slippers, cushions, narrow-sleeved (*choga*) and broad-sleeved coats (*sháyáh*), and waistcoasts are made for Muhammadans. The best-worked silk embroidery is produced at Navánagar and Gondal in north Káthiáwár, though Cutch gets the credit of the manufacture. Baroda, Surat and Bombay also supply embroidery to Muhammadans and Pársis. Embroidered silks are little worn by Hindus, except by the women of Gujaráti castes.

POWER INDUSTRIES AND HANDICRAFTS.

Woollens.

11. Woollen goods are in little demand. The only important product is the country blanket made in the Dakhan, Karnátak and Konkan by the Dhangars from homegrown wool. In Sind saddle-cloths and blankets and felts are made.

Fibres.

12. About 50,000 persons in all parts of the Presidency are employed in cutting, retting and scutching hemp for export, in twisting and spinning hemp flax and coir into ropes and cordage, and in plaiting and weaving them into mats, nets and sacking for export and home use. The yearly outturn may be valued at about 60 lákhs of rupees. The districts of Ahmedábád, Poona, Sátára, Ahmednagar and Shikárpur are the chief centres of the industry.

Paper.

13. Coarse paper is made from fibre to supply the local demand in Ahmedábád, Baroda, Surat, Násik, Junnar, Bombay and Kolhápur. But the mills in Poona and Calcutta are rapidly ousting the hand-made article.

Precious Metals.

14. The custom of investing savings in gold and silver ornaments gives employment to many goldsmiths throughout the Presidency. The metal is usually supplied by the customer and the goldsmith charges for his labour from 8 annas to Rs. 2 or 3 the *tola*. The poorer classes often wear ornaments of baser metal. Sind goldsmith's work is very beautiful, but is rarely seen outside that province. The well-known Cutch gold and silver work is embossed by hand. After the metal has been cut into the required form, soft lac is run in as a backing, and the design is traced on the surface of the metal. The lines thus marked are then forced with a hammer below the general surface of the metal; and finally the parts standing out in relief are chased and polished. Colonies of Cutch silversmiths have settled in various parts of Gujarát, and the reputation of Ahmedábád silver work is due entirely to the presence of a colony of Cutch workmen. Many Cutch silversmiths have also settled in Bombay and a few in Karáchi. Silver-ware similar to the Cutch work is made in Ahmednagar in the Dakhan, and strong and massive articles of gold and silver are produced in Káthiáwár.

Gujaráti Ornaments.

15. The special ornaments worn by Gujarát women are square and padlock-like nose-rings, round and other massive ear pendants, armlets (*karanful*), solid bracelets (*gugra*) either of gold or ivory extending high up the arm, and massive anklets (*kadlaa*) covered with bells, frequently so heavy that the wearers walk with difficulty.

Maráthá Ornaments.

16. The special ornaments worn by the Maráthá women of the Dakhan and Konkan are the graceful head ornaments called sweet pandanus (*ketak*), cobra (*nág*), moon (*chánd*), flower (*phul*), peacock (*mor*), and an armlet of peculiar shape, sometimes of gold but more frequently of silver. Their ankles are adorned with a chain-shaped silver ornament seldom so heavy as the anklets worn by Gujaráti women. To a large extent the ornaments worn by the Gujaráti and Maráthi-speaking races correspond with their types of form and feature—the slender figures of the Maráthá women inclining them to the choice of articles of light and intricate design, while the ample forms of the Gujaráti women harmonize with the plain and massive style of ornament which they have adopted.

Muhammadan and Pársi Ornaments.

17. Muhammadans and Pársis have ornaments peculiar to themselves. Pársis are rapidly giving up the old shapes and metals, preferring diamonds and pearls to all other decorations. The women of this race do not wear anklets.

Precious Stones.

18. Of precious stones cornelians and agates brought chiefly from Ratanpur near Broach and from Kapadvanj are worked in Cambay. In Bombay a brisk trade is carried on in these stones for export to Europe. Except for the decoration of children they are seldom used locally.

Brass and Copper.

19. Násik and Poona are both celebrated for their brassware, and Bombay and Ahmedábád produce large quantities of copper vessels which are sent to almost every part of Western India. The copper is all imported from Europe in sheets and hammered into shape by the local workmen.

Field Tools.

20. The cutlery and agricultural implements required by the people are still for the most part made locally by the village Lohár. The only goods that have more than a local reputation are the spear-heads of Ahmednagar, the knives and other tools of A'mod in Broach, and the swords, spear-heads and chain armour of Cutch, Káthiáwár and Baroda.

Tin.

21. Tin foil and gold foil are made in Ahmedábád and are much used at weddings for decorating door-posts. The tinplating of brass and copper vessels for household use is carried on in most towns. Musalmáns, Pársis and many Hindus have their cooking vessels tin-plated. The importation of kerosine oil in tins has given rise to a new industry. Enterprising Bohrás in Bombay and up-country buy the empty tin cases at from 2 to 2½ annas each and fashion them into lanterns, kerosine lamps, cash-boxes, travelling trunks, oil and ghi-pots and other cheap articles. Tin kerosine lamps are to be found in almost every house even in the remotest corners of the Presidency.

Electroplating.

22. Electroplating to a small extent is practised in Ahmedábád. The articles made are chiefly horse-trappings of copper plated with silver for use in marriage processions.

Glass.

23. Glass is made at Kapadvanj in Kaira by Musalmán workmen, who cast beads, bangles, bottles, glasses and fancy animals, chiefly peacocks, which are exported to Káthiáwár and Bombay. In Khándesh a few Musalmán Maniárs follow the same occupation, and in Kolába some Hindus of the Bángadkásár caste make bangles from green glass imported from Bombay which are bought by the poorer classes.

POWER INDUSTRIES AND HANDICRAFTS.

Lac.

24. Lac is prepared in Khándesh by the forest tribes and lac bangles are fashioned in the Panch Maháls and exported in large quantities to Bombay. In Sind articles of local furniture and toys are beautifully ornamented with lac. Lacquered furniture is also an important product in Ahmedábád, Baroda and Surat.

Ivory and Tortoise Shell.

25. Ivory rings are fashioned into women's bracelets in Bombay and Gujarát and sent in large quantities, chiefly to Rajputána. Tortoise-shell imported from Zanzibar is used for bangles which are worn by the poorer classes in Daman, Bulsár and Surat, in rows of rings reaching halfway up the arms. These bangles are made both in Gujarát and in Bombay. Lacquered wooden bracelets are made in Ahmedábád for low class Hindu women.

Pottery.

26. Though little except the commonest variety is to be met with throughout the Presidency, pottery is manufactured almost everywhere and is in constant demand among the poorer classes who cannot afford copper vessels. Except in one or two localities glazes are seldom used. Litharge is a favourite glaze in Ahmedábád. Clay pots are polished either by the pressure of a stick or by the friction of pebbles attached to a string and applied with the right hand while the vessel is made to revolve with the left. Sind produces the best local pottery of Western India. The art was introduced, or at all events developed, by the Muhammadans, whose chiefs, the Amirs, gave it every encouragement. Magnificent tombs and mosques, now in ruins, testify to the great degree of excellence the potters attained. The art of glazing has been transmitted to the present day, but the work and materials have lost much of their original excellence. The combination of the glazes and the colours of Sind pottery with geometric patterns and traceries and flower and figure designs copied chiefly from the Ajanta cave paintings has, under the direction of Mr. Terry, formerly of the Bombay School of Art, proved one of the most successful and popular revivals of Indian art. Pátan in north Gujarát produces a thin red, white, and black pottery of little use, but delicate in texture and curious in form. The few potters left seem once to have known how to glaze, but seldom attempt to utilize their knowledge, except on toys and bowls for tobacco pipes. In Ahmedábád is found abundance of fine clay, which is worked into common red, black, pink, and dirty-white ware, such as earthen pots (*matkás*), water-jugs (*kujás*) and pipe bowls (*chilams*). These articles are decorated with burnt mica, which when baked looks like bronzed powder. Here too, as elsewhere throughout Gujarát and Baroda, the curious jars known as *kotis*, sometimes as much as seven feet high, which are used for storing grain, are built and baked in great numbers. Large tiles were formerly made by the Muhammadan masters of this city and its neighbourhood and entered largely into the construction of the many mosques and tombs for which Ahmedábád is celebrated. A very poor ware is manufactured in Bombay, but a good stiff clay is found in Alibág. Poona clay works into good common utensils. Pottery from Málvan and Goa meets with a ready market even in Bombay, where it is brought by almost every mariner or labourer who sails from those ports. The Sávda potters in Khándesh have a name for their skill in colouring their wares. Clay figures are made in Poona and sold in large quantities as toys and presents to newly married girls. Steam brick and tile factories have been tried in this Presidency but proved unable to compete with the handmade articles.

Furniture.

27. Blackwood furniture heavily carved is made in Ahmedábád, Surat and Bombay, but is not so popular as it used to be. Large quantities of lacquered furniture, including beds, cots, swings, and chairs, are made in Bombay, where artistically designed furniture is now turned out by several factories.

Wood Carving.

28. Ahmedábád and Surat are famous for their carved woodwork. Many of the houses in Ahmedábád are covered with elaborate wood-carving, and several excellent examples exist in Broach, Baroda, Surat, Násik and Yeola. Samples and photographs of many of these carved house-fronts have been taken for the South Kensington Museum. The centre of the Bombay inlaid box-work, which owes its origin to Shiraz in Persia, is in Surat. Carving in sandalwood ebony and blackwood is also a fairly prosperous industry in Surat and Bombay, and a Pársi firm has established an agency in London for the well-known sandalwood toys of Surat. The best sandalwood carving belongs to Honávar, Kumta and other places in Kánara. Carving in ebony and blackwood is carried on at Ahmedábád.

Vehicles.

29. Country carts are built in every large town. In the north are made long low carts on solid broad wheels fit to plough the deep sandy ruts of Gujarát. These carts, whose upper part is framed with basket-work made from the cotton plant, frequently have a team of six bullocks harnessed by strong leather-plaited ropes made of buffalo hide. In other parts of the Presidency both the cattle and the carts are smaller. Excellent carts are made at Táloda in Khándesh and in the municipal and other workshops in Bombay. Throughout the Presidency in all towns of importance light carts known as *rekalas* are manufactured for the conveyance of passengers. These are usually drawn by a pair of bullocks, though horses are in some places employed. Pony tongas are built at many places in the Dakhan.

Boats.

30. Native boats are strongly and cheaply built at most of the coast ports, especially in Surat and Kánara. Government and the great steamship companies repair their vessels in their dockyards in Bombay and sometimes build steam-launches and other small craft.

Cane work.

31. Canes are imported into Bombay from the Straits and are used in making matting and other articles. Certain low castes all over the Presidency are expert at making matting and baskets of split bamboos, and there are some expert Chinese cane workers in Bombay.

POWER INDUSTRIES AND HANDICRAFTS.

Leather.

32. Shoes, sandals, harness, water-skins, and other leather articles in general demand are made by the local Chámbhár, who is found in every village. He is usually his own tanner and prepares his materials with the aid of the bark of the *bábul* tree. Besides this local industry, large numbers of people are employed in the curing of hides for exportation, of which 60 lákhs of rupees worth are sent to Europe yearly. In four mofussil factories this industry is carried on by the aid of machinery. Bombay has one large steam tannery manned chiefly by Tamil workmen. Although not very well prepared leather is worked into a variety of articles in Sind, Cutch, Káthiáwár, Gujarát, Baroda, Khándesh, Bombay, Poona and Sávantvádi. One of the most curious of leather articles is the jar (*dábaro*) used for holding oil and ghi. The *dábaro* is made by stretching a fresh skin over a hollow mould of dry clay. The skin is left stretched over the mould until it has become dry, when the mould is broken and the leather retains the form of the earthen jar. The rim is made by twisting pieces of skin round clay, the clay being left inside. Leather scales are made on circular earthern jars (*matkás*); the best are from Ahmedábád. Surat leather-bottle workers buy up old articles and remodel them. In Sind the chief leather manufactures are saddle-covers for camels and horses, shoes, leggings and accoutrements. Ahmedábád still keeps up the manufacture of shields. They are now purchased only by Europeans as ornaments, though some thirty years ago the Arab mercenaries commonly used them as weapons of defence. Of women's shoes those made in Ahmedábád are thought the best in Gujarát. Very good boots and shoes, saddles and bags are made in European fashion by native workmen under European superintendence in Bombay and Poona.

Horn.

33. Fancy articles of bison and other horn are moulded and carved with considerable skill in Ratnágiri and Kánara.

Tobacco.

34. Country cigarettes (*bidis*) are made on a large scale in Bombay from up-country tobacco, chiefly from Gujarát and the Dakhan. The best snuff comes from Viramgám in Ahmedábád. Attempts have been made at Kaira to manufacture cigars to suit the European taste, but without success.

Sugar.

35. Sugar is made wherever the cane is grown, and very largely in Thána and Khándesh. Attempts to substitute modern machinery for the primitive country sugar mill have hitherto failed for want of capital.

Oil.

36. Oil-presses are numerous in every district, and oil is extracted from castor-seed, sesame, rape-seed, poppy-seed, *mhaura* (for soap-boiling), linseed, groundnuts, and cocoanuts. In some branches the local industry has suffered by the competition of kerosine oil. This loss has to a great extent been balanced by the great and growing demand for vegetable oil in oiling machinery. Grass oil is made in Pimpalner and West Khándesh. Eleven steam-power oil-mills are at work in Bombay, Poona, Chiplún, Ahmedábád and Navsári, which turn out about 1,600 tons of oil annually.

Butter.

37. The trade in clarified butter is very great and is of special importance in Kaira and Khándesh. Large quantities of ghi, some of which is more or less adulterated with animal fat, are exported to Rangoon. There are a few model dairies producing good butter in Bombay and Poona.

Soap.

38. Soap is made in Kapadvanj and Parántij from *mhaura* oil, soda and lime; soap is also manufactured in small quantities in Bombay and Vengurla. It is in use in Gujarát and Bombay.

Salt.

39. Salt is made in large quantities in the Government works at Khárághoda and Udu in Ahmedabad, whence it is exported by rail to Gujarát and Central India. It is known as the Bárágara salt; and as in travelling it suffers less than sea salt, it is better suited for export to long distances inland. Sea salt is very largely made at Uran in Thána, and is exported by sea to the Malabár Coast and Bengal and by land to the Central Provinces.

Saltpetre.

40. Saltpetre is made in Ahmedábád. The earth of a large tract of country west of Viramgám is also suitable for the manufacture. Saltpetre is much used for fireworks, which are made in Bombay and in most of the Native States.

Gunpowder.

41. Gunpowder is manufactured at Baroda; a number of models of breech-loading guns and small arms prepared in that State were exhibited in the Bombay Exhibition. The Government Gunpowder and Small Arms Factories at Kirkee are important institutions carried out on a large scale and with all the latest machinery and appliances.

Sulphuric Acid.

42. Sulphuric acid, to the amount of 200 tons a year, is turned out by a factory in Bombay, where Italian sulphur is used. The local product suffers from the competition of imported acid.

Matches.

43. There is a Match Factory at Ahmedábád which produces cheap but inferior matches.

Aerated Waters.

44. There are numerous small soda-water factories in Bombay and the larger towns of the Presidency.

Ice.

45. Ice factories are at work in the Presidency, including four in Bombay, which supply ice for local consumption and to the shipping.

POWER INDUSTRIES AND HANDICRAFTS.

Rice-husking. 46. Though rice-husking is chiefly carried on without machinery, steam rice-husking mills have been started with success at Bulsár, Ahmedábád and Chinchni in Thána.

Flour. 47. Flour grinding is still in most places a domestic industry. As a factory industry it has made no progress recently.

Painting. 48. High art hardly exists. Still the Portuguese, Párs and Hindus have the capacity for becoming useful and clever artisans and original workers in the lower branches of art and art manufactures. They possess great facility for adaptation and are excellent copyists. Independent of their labour in many engineering and architectural offices, their reproduction and copies of the temple of Ambarnath near Kalyán in Thána and of the paintings of the Ajanta caves are creditable.

Lithography. 49. In lithography the unaided efforts of native artists have resulted in the production of a few outlines of religious subjects, and in the portraying of the inventions of modern science, such as the steam-boat, railway-train and balloon. So far all such attempts are crude.

Wood Engraving. 50. The native pupils brought up at the School of Art engrave on wood, and have successfully illustrated elementary educational and medical works.

Printing. 51. Excellent English printing comes from presses managed by Europeans. Vernacular printing is improving, especially in Bombay, where the demand for newspapers and new books is rapidly increasing. Vernacular type-making has attained considerable success in Bombay, where Maráthi, Gujaráti and Kánarese types are prepared in the Education Society's Press and the Ganpat Krishnáji Press. The Nirnayaságar Press also produces equally good types in Maráthi and Gujaráti. The Samáchár Press in Belgaum has its own Kánarese type foundry.

Sculpture. 52. Cutch and Káthiáwár stone-cutters have a marked talent for sculpture. The art has been transmitted from father to son for many generations. The Muhammadans were not slow in availing themselves of these skilful artisans. At first, especially in Ahmedábád, the Hindu artists influenced the Muhammadan design; and again the taste of their masters, reacting on the minds of the artists, produced the style of modern Jain architecture, of which the Hatehsingh temple at Ahmedábád is perhaps the best example. The skill of these Cutch and Káthiáwár workers has been found most useful in executing the more elaborate portions of the stone-work of the public buildings constructed in Bombay. With a little training these men render natural objects skilfully and intelligently and accurately reproduce Gothic details. Excellent Cutch sculptors as well as Portuguese modellers have been educated in the School of Art and in the Public Works Department.

6. Manufactures and Industries.

The principal industries, namely, cotton spinning and weaving, manufacture of salt, and distillation of liquor, are dealt with elsewhere. The ginning factories were not as fully employed as in the previous year in Khándesh. The butter-making industry in Ahmedábád and Kaira suffered somewhat from the effects of plague. Hand-weaving in the Sholápur and Bijápur districts was affected by the recurrence of famine conditions. In Sind the extension of cotton cultivation caused a brisk development in ginning factories. The rice-husking factories in the Lárkhána and the Thar and Párkar districts were fully employed during the year.

THE FACTORY ACT.

Number of Factories. The number of factories increased from 371 to 390. Of these 373 were actually at work. 201 were perennial and 172 seasonal.

Number of Operatives. The total number of hands employed was 172,459, including 35,850 women, 4,934 boys, and 1,767 girls. Of this total 136,845 were employed in the cotton industry.

Accidents. 1,664 accidents occurred, of which 28 were fatal and 61 serious.

Prosecutions. Four prosecutions were instituted, of which three ended in convictions.

THE STEAM BOILER INSPECTION ACT.

Operations of the Department. The total number of boilers on the register in the Presidency and Sind was 2,247 and at Aden 36: the number examined was 1,444 and 40 respectively.

Examinations. 131 certificates under Section 21 of the Act were granted in the Presidency and Sind, 27 under Section 22 and 1 under Section 23. At Aden one certificate was issued under Section 21.

Financial Results. The receipts were Rs. 51,064 and the expenditure Rs. 42,138, giving a balance of 8,926. Last year the excess of receipts over expenditure amounted to Rs. 9,201. The closing balance of the Fund rose from Rs. 1,18,157 to Rs. 1,57,098.

Offences. There were 16 offences detected during the year. In three instances prosecutions were instituted and ended in conviction. New rules under the Act were sanctioned by Government and brought into operation during the year.

7. Trade.

For details, *vide* appendices to the Trade and Navigation Report, Bombay Presidency, Sind and Aden, and Tables under XXX, Foreign Trade and Shipping, appended to the Financial and Commercial Statistics of British India.

(1) PRESIDENCY PROPER.

Port of Bombay.

Inclusive of transactions in Government stores and treasure, the total value of the sea-borne trade of the Presidency was Rs. 1,16,48,49,171, an increase of over 15 crores or 15 per cent. over the aggregate total for 1900-1901. The increase was confined to foreign trade.

I.—Foreign Trade.

Under Foreign trade are classed the imports from and exports to countries beyond the Indian continent. The aggregate total was Rs. 87,19,28,956, an advance of Rs. 17,45,11,472, on the figures for the previous year.

Imports.

There was an increase of Rs, 1,96,33,971 in the value of merchandise and of Rs. 3,55,24,088 in the value of treasure. The chief feature of the trade was the decline of 74·14 lákhs in the imports of food stuffs consequent on a return to normal agricultural conditions. Grain contributed a decline of nearly 56 lákhs, while the value of import of tea fell off by 9·42 lákhs. Sugar declined in value by 9½ lákhs to Rs. 2,52,22,036, but the quantity imported was greater by 37,577 cwts. Hardware and cutlery show a small decline of Rs. 1,28,002, the decline of 4·79 lákhs in goods from the United Kingdom and Austria-Hungary being only partially counterbalanced by an advance of 3 lákhs in German enamel goods. Under Metals, which show an improvement of 17·15 lákhs, there is a marked increase in copper (4½ lákhs) and steel (11½ lákhs). Machinery and millwork, consequent on better cotton prospects, improved considerably by 17 lákhs. Railway plant continued to fall from 48 lákhs to 44. Under Chemical stores, there was a marked advance in imports of aniline and alizarine dyes (8·82 lákhs and 7·20 lákhs respectively). Oils show a large decrease of 5·46 lákhs, mainly due to a decline in American imports. Raw materials fell considerably by 38·94 lákhs, raw cotton having dropped from 66·82 lákhs to 18·88 lákhs. Coal imports increased by 17 lákhs consequent on lower prices and easier freights. Jewellery shows an advance of 26 per cent., mainly in unset pearls. Silk imports declined by 25 per cent. Manufactured articles increased in value by 267 lákhs, to which cotton manufactures contributed 2 crores, the improvement being chiefly in white and coloured goods. Silk goods and woollen piece-goods advanced by 5·58 and 11·41 lákhs respectively. Glassware rose from 33·61 lákhs to 47·35, the increase being in bottles and plate and glassware. The increase in treasure is exclusively under Silver, gold imports having decreased by Rs. 23,888,442. The Mint imported silver for coinage purposes to the value of Rs. 4,22,16,189 as against Rs. 1,37,83,010 in 1900-1901.

Exports.

The export trade has two branches (1) Export of foreign merchandise from Bombay to European, Asiatic and African ports, (2) Export of Indian merchandise to foreign ports. The total value of these transactions rose from Rs. 33,62,85,061 to Rs. 45,56,38,474.

Transhipment of Foreign merchandise.

The total value of foreign merchandise re-exported from Bombay rose from 244 lákhs to 253, of which 52 per cent. represents cotton goods and cotton twist and yarn. The bulk of the trade was with Persia (66 lákhs), Arabia (31·4 lákhs) and the United Kingdom (29·3 lákhs). There has, however, been a steady decline in the last ten years in this branch of the export trade, consequent on the establishment of direct sea communication with the East African and West Asiatic Sea board. Exports to the Persian Gulf have fallen from 162 lákhs in 1894 to 66·3 lákhs, while the value of goods re-exported to British East Africa has declined from 24 lákhs ten years ago to 16.

Exports of Indian Merchandise.

The exports of Indian merchandise increased by 1,057 lákhs to Rs. 35,29,25,836. The bulk of this increase is distributed over grain (21·44 lákhs), raw cotton (435 lákhs), seeds (366 lákhs), cotton twist and yarn (4·43 lákhs), and cotton manufactures (8 lákhs). Opium shows a heavy decrease of 105 lákhs, representing 7,173½ chests, the high price demanded by the Indian exporters encouraging the tendency of the Chinese to consume their own drug. Tobacco exports show an abnormal increase of over 7 lákhs, mainly in shipments to Aden. Indigo dropped 4 lákhs. Hides and skins show a heavy decrease of 65 lákhs, the large exports in the two previous years being due to the abnormal cattle mortality. Among seeds the rise in cotton seeds from 4·73 lákhs to 45·34 lákhs calls for notice.

There was an increase of Rs. 1,27,78,425 in the exports of treasure. The exports of gold to Europe fell off, but there was an increase in exports to Ceylon, Arabia and Japan. Silver exports consisted mostly of shipments of dollars to Singapore and China and of Government of India rupees to British East Africa, German East Africa, Aden, Arabia, Ceylon and Persia.

Geographical Analysis of the Trade.

The trade with European countries improved in value to the amount of Rs. 5,20,25,092. There was an increase of 16 per cent. in value of the import trade with the United Kingdom and a decrease of 19 per cent. in the export trade. In the import trade with other European countries there was a large increase of 113 lákhs. On the other hand, partly owing to the diminished imports in raw cotton from Egypt, the value of the trade with African ports fell by

Rs. 45,57,406. The trade with America principally on account of the fall in oil exports decreased considerably by Rs. 6,84,956. The large augmentation in the raw cotton exports to China and Japan contributed to the increase of Rs. 7,04,03,004 in the value of trade with Asiatic countries, while the trade with Australia in spite of an increase of Rs. 83,650 in exports fell from Rs. 23,64,114 to Rs. 22,87,349.

Shipping engaged in Foreign Trade.

The number of vessels which entered and cleared with cargoes from and to Foreign ports increased by 123 to 1,597, with a tonnage of 2,301,326. Of these 701 were British, 332 belonged to other European nationalities, 266 to Asiatic countries and 298 were native craft.

II.—Coasting Trade.

Under this head are classified imports from and exports to (*a*) British ports of other Provinces including Sind, (*b*) British ports within the Presidency, (*c*) Foreign Indian Ports. The total value of this coasting trade was Rs. 29,29,20,215, a decrease of 7 per cent. on last year's figures.

Imports.

The total value of imports shows a decline of 268 lákhs to Rs. 14,75,67,403.

Imports from British Ports in other Provinces.

Under this heading there is a decline of 322 lákhs on the whole, Sind alone showing an increase of 100 lákhs, to which raw cotton contributes 47 lákhs and grain 36. Burma rice shows a fall of 301 lákhs. Grain and coal contribute to the decline of 61 lákhs in imports from Bengal A large contraction in the cocoanut trade accounts for the fall of 27 lákhs in the trade with Madras.

British Ports in the Presidency.

The decrease of 15 lákhs in this trade was due to the restriction of the shipments of grain from port to port.

Imports from Indian Ports not British.

The feature of this branch of the import trade was the advance of 70 lákhs in imports from Káthiáwár mostly of raw cotton. The trade with Goa shows a decline of 5 lákhs due to the competition of the Southern Mahratta and Great Indian Peninsula Railways with the sea route.

Total Exports.

The total value of exports increased by Rs. 54,37,850 to Rs. 14,53,52,812.

British Ports in other Provinces.

The value of exports to Sind improved by 150 lákhs, of which 65 lákhs represents increase in merchandise (cotton piece-goods 60 lákhs). Exports to Bengal fell by over 28 lákhs mainly due to a contraction of the trade in cotton twist and bellmetal. Shipment of salt to Madras increased by 10 lákhs.

Exports to the Foreign Indian Ports.

Exports to Foreign Indian Ports declined by 61 lákhs (Káthiáwár 47 lákhs, Cutch 12), mainly in food-stuffs and grain.

Coasting Shipping.

144,674 vessels, of which 138,891 were native craft, entered and cleared with cargo from and to coast ports.

Land Trade of the Presidency proper.

The aggregate of imports from and exports to external blocks rose in value from Rs. 4,379 lákhs to Rs. 5,202 lákhs and in quantity from 570 lákhs of maunds to 641. Internal or local trade decreased in value from Rs. 2,643 lákhs to Rs. 2,529.

I.—External Trade.

Imports.

These increased by 68 lákhs of maunds and Rs. 567 lákhs in value. The most important increases were in cotton (82 per cent.) from Berár, rapeseed from the Punjab and the United Provinces, linseed from the Central Provinces and Hyderabad, and cotton-seed from the Berárs and the Central Provinces. On the whole imports of oil-seeds improved by 122 per cent. Metals showed a rise of 68 per cent. due to the development of the trade in Manganese ore from the Central Provinces for export abroad principally to Germany, the United States and Egypt. The trade in horned cattle continued, 46,000 heads valued at Rs. 20 lákhs being imported into Gujarát and North Deccan from Central India. Decreases occurred in coal and coke from Bengal (28 per cent.), wheat (43 per cent.) and other food-grains (26 per cent.), cane sugar (30 per cent.), hides and skins (64 per cent.), Malwa opium (33 per cent.) and straw from the Central Provinces and Rájputána.

Exports.

The export trade showed an advance of 2·2 per cent. in volume and of 14·7 per cent. in value. About 58 per cent. of the export were from the Bombay Port, British Provinces took 58 per cent. and the Native States the remainder. The transactions in European and Indian cotton goods advanced by 13 and 59 per cent. respectively, the bulk of the former being taken up by Madras and Hyderabad, and of the latter by the United Provinces and Madras. European piece-goods improved by 11 per cent., the exports being mainly to the United Provinces, Berár, Hyderabad and Madras. Exports of metals reached the highest point in the decade (17·38 lákhs of maunds), the increase being observable mainly in consignments to the United Provinces and Berár. American oil exports to the Central Provinces, Berár and Rájputána improved by 15·4 per cent. Exports of sugar (mainly refined) rose from 14·24 lákhs of maunds to 17·02, the United Provinces and Central Provinces being chiefly responsible for the advance. Exports of coal and coke from Gujarát to Rájputána showed an increase of 48 per cent. With the renewed activity in the cotton trade dyes, alizarine and aniline, advanced

by 44 per cent. Exports under oil-seeds improved by 2·3 per cent. Tobacco increased by 66 per cent. owing to larger demand for the unmanufactured leaf from Rájputána and the Central Provinces. Under food-grains exports fell by 33 per cent., but were still about 2½ times higher than before the distress set in. Exports in raw cotton declined by 10 per cent., shorter supplies being required in Madras and Hyderabad. Hides and skins fell considerably by 55 per cent., the exports to Calcutta and the United Provinces, which had taken large quantities during the famine, having dwindled into insignificance.

Local Internal Trade.

This branch of the trade consists mainly of transactions between the Bombay Port and the rest of the Presidency. The total trade showed a fall of 11·8 per cent. below last year. The exports to Bombay Port rose by 26·6 per cent., while those from the port diminished by 33 per cent. Increases occurred in consignment of raw cotton (54 per cent.), manufactured cotton (36 per cent.), oil-seeds (83 per cent.), while imports of wheat fell by 32 per cent. and of other food-grains by 49 per cent.

(2) SIND.

Chief Port—Kárachi.

The sea-borne trade of Sind is divided into (1) foreign and (2) coasting. Exclusive of Government stores and treasure, the value of the trade rose from Rs. 13,58,19,383 to Rs. 23,41,54,592, an increase of 72 per cent.

I.—Foreign Trade.

This heading includes imports from and exports to foreign external ports. These were valued at Rs. 15,42,17,637 against Rs. 7,98,75,109 in the previous year.

Imports. There was a net advance of Rs. 1,93,90,130 under this head brought about principally by increase in imports of refined sugar chiefly from Austria-Hungary (22 lákhs), of dyes, oils from Russia, cotton twist and yarn (7½ lákhs), cotton piece-goods from the United Kingdom (122 lákhs), and woollen goods from the United Kingdom and Germany (7 lákhs). There was a decrease in imports of coal (1·8 lákhs) and metals.

Exports. Exports show an increase of Rs. 5,49,52,398 distributed over cotton piece-goods, rice (especially to Ceylon and the Persian Gulf), wheat, raw cotton (3 lákhs), rape-seed, gingelly seed (22 lákhs). Exports of tea, hides and skins (5½ lákhs), animal bones (4 lákhs), raw wool show decreases.

Geographical distribution of the Trade. Out of the total trade, the trade with Europe was over 87 per cent. (of which the United Kingdom claimed over 44 per cent.), that with Africa was over 6 per cent., and that with Asia nearly 5 per cent. The trade with Australia, though showing an increase, was still insignificant (Rs. 3,200).

Shipping. The total number of vessels employed in the foreign trade increased from 766 to 941 with a tonnage of 827,712. Of this number 155 were British, 24 Austro-Hungarian and 117 Arab.

II.—Coasting Trade.

Imports. The imports of merchandise from coast ports improved by Rs. 59,88,773. Bombay claimed 89 per cent. of the imports. Cotton goods improved by 54 lákhs.

Exports. These improved by Rs. 90,14,845 to Rs. 3,48,25,661, of which 74 per cent. were exports to Bombay. Raw cotton advanced by 50 lákhs, rape-seed by 18 and wheat by 9 lákhs.

Shipping. The number of vessels engaged in the coasting trade increased from 4,635 to 6,010 with a tonnage of 10,82,992.

III.—Trade with Subordinate Ports.

Exclusive of movements in treasure, the trade with subordinate ports decreased by Rs. 3,35,204, distributed over exports to and imports from Keti Bandar and Sirganda.

Sind External Land Trade.

The countries with which the external land trade of the Province is carried on are Afghanistan, Baluchistan and Seistan. The value of the exports and imports amounted to Rs. 1,02,47,964, an increase of 18 per cent. over the figures for the previous year.

Imports. The import trade shows an increase of Rs. 4,71,677 or about 9 per cent., shared by all three countries equally. The items in which increases occur are horses, ponies and mules, non-intoxicating drugs (1½ lákhs), jute, wheat, gram, gunny bags, ghee (4 lákhs), rape-seed (2¾ lákhs), and silk. There is, however, a decrease in fruits and nuts (1⅓ lákhs), hides, skins, gums and resins.

Exports. The value of the export trade exceeded that of last year by Rs. 10,83,359 or 32 per cent. The increase is due to larger exports of cotton piece-goods (nearly 7 lákhs), indigo (1⅕ lákhs),

leather manufactured metals, refined sugar and tea (1½ lákhs). There was a decrease of Rs. 86,995 in exports to Baluchistan, while on the other hand the export trade with Seistan, as a result of the opening up of the Nushki route, rose from Rs. 2,42,016 to Rs. 8,64,216.

ADEN.

The trade of Aden is divided into (1) Foreign, (2) Indian, and (3) Inland. The total value of the trade of the Settlement in all its branches was Rs. 9,18,85,047 against Rs. 7,32,11,586 in 1900-1901.

Foreign Trade.

Imports. These amounted to Rs. 3,55,51,768 including treasure. The increase of 50 lákhs was distributed over imports of manufactured articles from the United Kingdom (5 lákhs), coffee from Arabia (14 lákhs), skins, ivory, animals and coffee from Somáli Land (14 lákhs) and cotton piece-goods and grain from America (7 lákhs).

Exports. The increase of 85 lákhs was distributed over exports to the United Kingdom of coffee and ivory, to Zanzibár of cotton piece-goods, to Abyssinia of cotton twist and yarn, and to Somáli Land of arms and ammunition.

Indian Trade.

Imports. These increased by 10 lákhs to Rs. 1,13,70,301, mainly in imports of cotton goods from Bombay, and grain from Karáchi.

Exports. Exports decreased by nearly 2½ lákhs to Rs. 21,99,555, mainly in animals, coffee and grain to Bombay. On the other hand export of salt to Calcutta increased by 66 per cent.

Inland Trade.

Imports. The number of camel-loads increased from 14,453 to 17,157, and the value of imports to Rs. 30,62,294. Increases occurred in imports of animals, cotton and provisions while there was a substantial decreases in imports of coffee.

Exports. These increased by Rs. 8,04,385 owing to large exports of cotton twist and piece-goods, oils, spices, drugs and provisions.

Shipping.

1,278 vessels of the net registered tonnage of 2,720,988 entered the port against 1,188 vessels of a tonnage of 2,349,707 entered in 1900-1901. Of these 683 were British and 74 British Indian vessels.

8. Public Works.

Civil Buildings.

The following works were in progress or completed during the year :—

Imperial Services —Salt. Lines for the peons of the Sir-Kárkun's office at Mátunga (cost Rs. 6,581), commenced in the previous year, and quarters for the Sir-Kárkun (cost Rs. 5,355) were both completed. Quarters for the Salt establishment at Trombay (cost Rs. 24,257) and for the Preventive Inspector at Bassein (cost Rs. 7,621) were completed. The work of extending the pier at Máhul, estimated to cost Rs. 15,325, was in progress, the old pier having become useless. Quarters for the Daroga and his Aval-Kárkun with office at Juchandra, estimated to cost Rs. 3,882, were in progress. Náka Lines at Goregaon were completed (cost Rs. 3,772). The causeway across the Khárághoda Tank was completed (cost Rs. 7,705). Quarters for the Sir-Kárkun at Mulekhind (cost Rs. 4,652) were completed. Quarters for the Sir-Kárkun at Pen, estimated to cost Rs. 4,257, and for the Salt Daroga at Khachar (Pen), estimated to cost Rs. 4,362, were commenced. Materials for quarters for Kárkuns of the Preventive stations, estimated to cost Rs. 4,115, and for lines for Peons, estimated to cost Rs. 3,268, both at Karanja, were collected. Improvements to the Salt Works at Sanikatta, estimated to cost Rs. 10,035, were commenced; of these the improvements to the pier and the construction of one sluice were nearly completed. The construction of an office and quarters for the establishment of the Salt Department at Dilyár was commenced, and the expenditure during the year was Rs. 5,999 against an estimate of Rs. 12,477.

Post Offices. An additional coach-house was constructed in the Post Office stables near the Apollo Bandar, Bombay (cost Rs. 4,392). A combined Post and Telegraph Office at Násik, with servants' quarters, was completed at a total cost of Rs. 11,004. The drainage of the compound of the General Post Office at Karáchi, commenced last year, was completed at a cost of Rs. 3,668.

Telegraphs. A new Telegraph Office at Ahmedabad was completed (cost Rs. 31,535). The new Telegraph Office at Rájkot, estimated to cost Rs. 24,604, was practically completed and Rs. 20,000 allotted during the year were spent. The work of re-roofing the Government Telegraph buildings at Sholápur was completed at a total cost of Rs. 6,348. The construction of Telegraph Offices at Poona was in progress, the estimated cost being Rs. 64,237. Two new works at Karáchi, *viz.*, (1) increasing accommodation for the Signalling Staff, Government

Telegraph Department, estimated to cost Rs. 5,327, and (2) construction of a new residential block for the Indo-European Telegraph Department, estimated to cost Rs. 34,265, were commenced and nearly completed during the year.

Customs.

A story was added to one wing of the Town Custom House, Bombay, at a cost of Rs. 13,998.

Provincial Services—Land Revenue Buildings.

The Mámlatdár's Kacheri at Váda in the Thána District was completed (cost Rs. 29,992). A fireproof building for Survey Records, Thána, estimated to cost Rs. 12,050, was in progress. Accommodation for offices and records in the Collector's bungalow at Thána was provided (cost Rs. 2,492), some minor alterations being made in the bungalow for office accommodation, while the old out-houses were converted into record-rooms and provided with record-stands of standard design, and windows added for admission of light. The utilization for the Collector's Kacheri and offices of the old Jail building at Kaira, which was vacated by the transfer of the Jail to the Ahmedabad Central Prison, has been under consideration since 1894. Proposals were sanctioned in 1901, and work, estimated to cost Rs. 6,765, was nearly completed in January, but the Revenue authorities found many additional changes necessary to suit the building for a Magistrate's Court and Offices of the Treasury Officer as well as the whole Account Office, and a supplementary estimate was submitted to finally complete the work. Certain additions and alterations to the Daskroi Mámlatdár's Kacheri were completed (cost Rs. 21,864), and the buildings have been handed over to the authorities concerned A record-room for táluka and village records at Poona was in progress and nearly completed (cost Rs. 7,686). Alterations in the Mámlatdár's Kacheri at Wadgaon in the Poona District were in progress (estimated cost Rs. 5,315). A Forest Ranger's Office and seed-room in the compound of the Mámlatdár's Kacheri at Ahmednagar were completed at a cost of Rs. 1,644. A record-room for the Sub-Registry Office and Táluka Village Registry Office were completed (cost Rs. 1,073). Increased accommodation for the Sub-Registrar of Ráhuri in the Ahmednagar District was provided at a cost of Rs. 1,747. The well in the compound of the Mámlatdár's Kacheri at Nandurbár in the Khándesh District was deepened at a cost of Rs. 858. Additions and alterations to the Mámlatdár's Kacheri at Jalgaon in the Khándesh District were carried out (cost Rs. 5,344). The Mámlatdár's Kacheri at Sirsi in the Kánara District, estimated to cost Rs. 34,620, was in progress. Mámlatdárs' Kacheris at Gadag, estimated to cost Rs. 42,786, and at Shiggaon, estimated to cost Rs. 38,675,—both in the Dhárwár District, were commenced. Materials for the Mahál Kacheri at Nágothna in the Kolába District, estimated to cost Rs. 19,916, were collected, and the construction of a district bungalow at Athni in the Belgaum District, estimated to cost Rs. 6,032, was commenced. Kotwal's office at Tando Adam in the Hyderabad District was commenced and completed during the year at a cost of Rs. 3,624 against an estimate of Rs. 3,757. Sanction was given to the opening of a new Collectorate at Lárkhána in Upper Sind, consisting of the seven southern tálukas of the Shikárpur District and the three northern tálukas of the Karáchi District. The head-quarter station is to be at Lárkhána, involving the construction at that place of the following buildings :—

	Estimate.	Expenditure.
	Rs.	Rs.
1. Collector's office with Treasury and Account offices...	1,11,213	72,218
2. Collector's bungalow	43,493	29,604
3. Two bungalows for Assistant Collectors ...	62,070	5,513
4. Bungalow for the Superintendent of Police ...	32,373	5,487
5. Police lines at Lárkhána	88,910	21,196
Total ...	3,38,059	1,34,018

No expenditure was incurred on the Second Assistant Collector's bungalow. New offices for the Mukhtiárkar of Kandkot in the Upper Sind Frontier District, estimated to cost Rs. 33,960, were constructed and well advanced by the end of the year. Additions and alterations to the district bungalow at Rohri, estimated to cost Rs. 3,164, were in progress, the expenditure during the year being Rs. 2,001.

Excise Buildings.

Two fermenting sheds at the distillery at Kotri, for which materials were collected last year, were completed at a total cost of Rs. 30,284.

Residences for Local Governments, Government Officers and Secretariat Offices.

Servants' quarters at Government House, Malabár Point, commenced in the previous year, were completed with a third storey (cost Rs. 62,846). The bungalows with out-houses on Malabár Hill for the Commandant and Adjutant of His Excellency the Governor's Body Guard, estimated to cost Rs. 66,073, were nearly completed. The new Clerks' quarters in connection with the same Government House, estimated to cost Rs. 57,070, were commenced. A plain railing round the compound of the Secretariat building at Bombay, estimated to cost Rs. 3,906, was commenced and nearly completed. Secretariat offices and peons' quarters in the compound of the Council Hall at Poona were completed at a cost of Rs. 10,808. Additional bed-room accommodation at Government House, Ganesh Khind, was in progress (estimated cost Rs. 29,998). The restoration of the Store at Government House, Ganesh Khind, which was destroyed by fire, was completed (cost Rs. 5,713). The construction of an additional storeyed building for the Government House at Mahábaleshvar, estimated to cost Rs. 6,870, was in progress. A bungalow for the Assistant Collector of Thána on the Parsik Hill, near Thána, estimated to cost Rs. 14,356, was in progress.

Monuments and Antiquities.

The restorations of the Bokhara Mosque at Bijápur to the state it was in before its temporary conversion into a Post-office, and of the mosque attached to the Gol Gumbaz at Bijápur to its original state before it was converted into a travellers' bungalow, were completed. The Nagárkhána attached to the Gol Gumbaz was restored to its original state.

Educational : Colleges.

The new anatomical rooms for the Grant Medical College, estimated to cost Rs. 66.555, were commenced. The work of additions and alterations to the Maháluxmi Female Training College at Ahmedabad, which was in progress in the previous year, was completed (cost Rs. 9,854). The work of constructing two Lecture Halls at the Deccan College, Poona, was in progress (amount of estimate Rs. 18,068).

Schools.

The construction of the Lord Harris Primary School at Bombay, estimated to cost Rs. 46,522, from funds contributed by the public, supplemented by a Government grant, was about half completed. A boarding-house in the compound of the Anjuman-i-Islam School, Bombay, was completed (cost Rs. 29,424). A school-house for 100 boys at Khatalwada was completed (cost Rs. 2,871). Additions and alterations to the High School at Broach, estimated to cost Rs. 5,316, were in progress. The school-house at Mátar for girls, estimated to cost Rs. 3,722, from Incorporated Local Funds, was in progress. The construction of a school-house for boys and girls at Mahudha was undertaken at the request of the Municipality. The work was in progress, and Rs. 3,019 were spent, the cost being met from Excluded Local Funds. Additions and alterations to Sisters' quarters, St. Mary's School, Poona, were completed (cost Rs. 6,734). A school-house at Yerrowda was commenced and completed at a cost of Rs. 2,645. Construction of Orphanage and Training School, Poona—a contribution work—was in progress. The outlay during the year was Rs. 34,583. The work of the High School at Sholápur was in progress and nearly completed, the outlay during the year being Rs. 20,760. A Local Fund School-house at Málsiras in the Sholápur Collectorate was nearly completed at a total cost of Rs. 3,268. Five Local School-houses at Khedgaon, Salva, Moregaon, Asoda and Nardhana in the Khándesh District, were constructed at a total cost of Rs. 8,177. The work of renewing and raising the roof of the Sardár's High School at Belgaum, estimated to cost Rs. 9,317, and that of adding two extra rooms to the new High School at Bijápur, and constructing a compound were in progress (expenditure during the year Rs. 6,226). A boarding-house for young Talpurs in the Sind Madressah at Karáchi was completed at a cost of Rs. 18,790, Government paying the whole cost as a part of its contribution of Rs. 30,000 to the Endowment Fund of the Sind Madressah. A similar boarding-house for the High School at Shikárpur, estimated to cost Rs. 16,913, was commenced, expenditure during the year being Rs. 3,000. The work of extensions to the High School at Shikárpur, estimated to cost Rs. 11,818, made good progress, expenditure during the year being Rs. 7,000.

Ecclesiastical.

The work of restoring Saint Paul's Church, Poona, was completed at a total cost of Rs. 15,918 against an estimate of Rs. 13,938. The work of extending Saint Sepulchre's Cemetery at Poona was in progress (estimated cost Rs. 8,036). Extension of the cemetery at Ahmednagar was in progress (estimated cost Rs. 5,641).

Law and Justice.

Improvements to the drainage of the Claremount Premises used as 2nd and 4th Presidency Magistrates' Courts at Mázgaon, Bombay, estimated to cost Rs. 3,571, were commenced. A Court-house for the Assistant Judge, Subordinate Judges and Small Causes Court at Ahmedabad was completed and handed over to the Department concerned for occupation (cost Rs. 84,359). Additions and alterations to the Cantonment Magistrate's Office at Poona were practically completed at a cost of Rs. 9,011. A new bungalow for the Assistant Judge at Bijápur, estimated to cost Rs. 13,440, and a Subordinate Judge's Court House at Vita, in the Sátára District, estimated to cost Rs. 15,069, were commenced.

Jails.

Drainage was provided for His Majesty's Common Prison, Umarkhadi, at Bombay, and connected with the Municipal sewers (cost Rs. 4,094). Two temporary sleeping Barracks at the Deccan Central Jail, Yerrowda, were constructed at a cost of Rs. 5,278. The work of providing increased accommodation in the District Prison at Dhulia was in progress (estimated cost Rs. 84,509). Certain additions, costing Rs. 3,372, to the Prison at Bijápur were carried out. A new duplicate pump for the prison well in the Central Jail at Hyderabad and a stand-pipe on the main were provided at a cost of Rs. 3,994 against an estimate of Rs. 4,105.

Police.

A sum of Rs. 1,84,840 was expended on Police works. Out of this sum, Rs. 15,977 were devoted to additions and alterations to existing Police buildings. Rs. 2,453 were expended on the bungalow for the District Superintendent of Police, Thána, estimated to cost Rs. 14,356. Rs. 6,550 were spent on purchase of materials for the New Head-quarter Police Lines at Poona. The question of site not having been settled, the work of construction was not commenced. Head-quarter Police Lines at Sholápur were nearly completed, the expenditure during the year being Rs. 43,291. Police lines at Siddápur in the Kánara District, estimated to cost Rs. 11,298, were in progress, the expenditure during the year being Rs. 5,497. Town Police Inspector's Office at Hyderabad, estimated to cost Rs. 4,546, was completed. Police Head-quarters at Sukkur were in progress, the expenditure during the year being Rs. 50,325. Bungalow with out-houses for the Superintendent of Police, Lárkhána, estimated to cost Rs. 32,373, was in progress. Police lines at Lárkhána were also in progress, the expenditure during the year being Rs. 21,196.

Medical.

Quarters for the Medical Staff of the Sir J. J. Hospital and out-houses in connection therewith commenced in the previous year were completed (cost Rs. 35,920). A shed for

out-patients in the same hospital, estimated to cost Rs. 3,100, was commenced and about half completed. The old House Surgeon's quarters were converted to provide hospital accommodation for six students of the Grant Medical College at a cost of Rs. 2,786 from funds contributed as a memorial to the late Dr. Bahadurji. A lift in St. George's Hospital, Bombay, was erected (cost Rs. 4,060). The construction of a Laundry and Dhobis' ghát in connection with the same hospital, estimated to cost Rs. 10,011, was commenced. A small Laundry was constructed for the Kama Hospital, Bombay (cost Rs. 4,366). In connection with the Narotamdas Madhavdas Lunatic Asylum at Nowpáda certain minor works were carried out, and the asylum was completed finally at a cost of Rs. 4,48,550, and opened by His Excellency the Governor on 16th January 1902. It was equipped with furniture at a cost of Rs. 6,115. The Byramji Jijibhoy Hospital at Mátherán, estimated to cost Rs. 10,984, was in progress. A new Maternity Hospital in connection with the Sassoon Hospital, Poona, was completed at a cost of Rs. 21,656. For sanitary improvements to this hospital (estimate Rs. 95,183) materials to the extent of Rs. 5,229 were purchased during the year. Lying-in wards for Pársi females in this hospital, for which funds have been provided by Mr. Sorabji Padamji, were completed during the year at a cost of Rs. 4,334. The work of constructing wards for prisoners and lunatics in the Civil Hospital at Násik was in progress (estimated cost Rs. 4,960). Quarters for compounder and an operation shed in the Veterinary Dispensary at Dhulia were constructed at a cost of Rs. 2,065. The work of construction of a new Dispensary building at Jámkhed (Incorporated Local) was in progress. The expenditure during the year was Rs. 1,850. The work of substituting Mangalore tiled roofs for the thatched ones over the Civil Hospital building at Sholápur was almost completed at a total cost of Rs. 6,984 (estimated cost Rs. 7,581). The work of constructing quarters for Nurses and European wards at the Civil Hospital at Karáchi, estimated to cost Rs. 34,484, was completed. The construction of an operating room on the east side of the Civil Hospital, Karáchi, estimated to cost Rs. 3,052, was practically completed. Quarters for a Hospital Assistant attached to the European General Hospital at Aden were constructed at a cost of Rs. 2,576. Quarters for five servants, at the European General Hospital at Steamer Point, were built at a cost of Rs. 2,422.

Miscellaneous.

Quarters were constructed for the First Assistant of the Time Signal Office in the Meteorological Observatory, Colába (cost Rs. 3,700). A sum of Rs. 13,237 was sanctioned to complete the repairs of the organ in the Town Hall, Bombay. Quarters for the servants of the Superintendent of Mátherán were completed (cost Rs. 5,634). A record-room for the records of the offices of the Superintending Engineer, Central Division, and the Executive Engineer, Poona District, at Poona, was commenced and completed at a cost of Rs. 2,603. The work of constructing a bungalow and office for the Executive Engineer at Násik, estimated to cost Rs. 26,833, was in progress during the year. Improvements to the Sub-Divisional Officer's quarters at Bhigwan were in progress (estimated cost Rs. 2,640). Inspection bungalow with out-houses at Edlabad was in progress (estimated cost Rs. 4,454—expenditure Rs. 1,276).

2.—Communications.

The following roads were in progress or were completed during the year :—

Metalled Roads—Bridged and drained throughout.

		Estimate.	Expenditure during the year.
		Rs.	Rs.
Northern Division	... Road from Olpád to Sáhol (Local)	43,912	8,658
	„ Ahmedabad to Dholka (Local)	25,862	2,499
	„ „ to Bareja (do.)	13,284	493
	„ „ to Bowla (do.)	23,998	1,203
Central Division	... Deviation of the Násik-Balsad Road	46,211	1,383
Southern Division	... Re-building slab-drains Nos. 112 to 116 in mile 34 of the Belgaum-Bágalkot Road, section from Belgaum to Korkop (Provincial)	2,800	3,513
	Masonry bridge on Nála No. 231 in mile No. 38 of the Karád-Chiplún Road	3,939	3,450

Metalled Roads—Partially bridged and drained.

Central Division	... Improving Ghorda-Kondaibári Road	38,155	1,976
Indus Left Bank Division.	6th mile of the Tando Mahomed Khan Road ...	3,098	2,825
	Road between Mir Mahomed Khan's Tando and Hajipur	3,214	1,853
Indus Right Bank Division.	Constructing a portion of revetment wall of Bhagotora Road (Provincial)	437	416

Unmetalled Roads—Bridged and drained throughout.

Northern Division	... Road from Amalsád Railway Station to Dhamdacha (Local)	8,668	3,009
Central Division	... Ghoti-Shirgat Road	1,73,496	14,979

Unmetalled Roads—Partially bridged and drained.

Northern Division	...Road from Khodala to Mokháda (Provincial) ...	1,14,019	27,170
	Road from Manor to Kase (Provincial)	23,262	10,314
	Second Section of Road from Kulwa to Belapur (Local).	28,027	1,500
	Road from Kalyán to Karjat (Local)	37,921	1,786
	Road from Gholvad Railway Station to Bordi (Local) ...	12,050	4,644
	The Wangaon-Chinchani Road (Local)	35,989	1,496
	Road from Wawla (Gáiumkh) to Ghodbandar (Local) ...	20,262	5,494
	Bridge at Zai Creek (Local)	3,996	3,910
	Sanján-Nárgol Road (Local)	51,141	992
	Road from Madhi Railway Station to Mándvi (Local) ...	23,535	5,791
	Road between Levacha and Vapi (Local)	12,092	6,308
	Paving a portion of a Nal Road at Vákáner in Bárdoli Táluka (Local)	4,462	395
Central Division	... Road from Bhimáshankar to Dimbha Khurd ...	2,21,133	22,014
	Do. Poud to Borkhas	1,52,572	16,844
	Do. Valha Railway Station to Parincha and Vir...	47,517	17,446
	Do. Kotul-Brahmanwada Road	83,751	7,979
	Feeder Road from Mehunbara to Jánda Railway Station	37,139	998
	Do. Visarwadi to Chinchpada (Local) ...	2,315	1,987
	Shirpur-Chopda Road, 1st Section, from 88th mile of Bombay-Agra Road to Aner River (Local) ..	95,801	2,344
	Feeder Road from Bombay-Agra Road to Nardhana Station (Local)	4,048	1,656
	New road from the gate of the Náwápur Railway Station to the village boundary line of Nawápur (Local)	3,245	1,956
	Road from Amalner to Párola	67,633	1,974
	Road from Taloda to Nandurbár and inspection bungalow (Local)	71,270	8,943
	Akluj-Málsiras Road (Local)	3,806	478
Southern Division	... Constructing culvert No. 7 in mile No. 3 of the Belgaum-Shetavda Road (Provincial)	4,003	3,003
	Bijápur-Kágvád Road—Section from Athni to Kágvád *viâ* Shedbal Railway Station (Provincial)	25,920	46,165
	Bijápur-Kágvád Road—Section from Honwad to Athni (Provincial)	59,949	3,502
	Nargund-Gokák Road (Provincial)	31,578	19,990
	Road from Nágothna to Roha over Bhisi Khind (Local).	50,563	8,585
	Improving road from Sadáshivgad to the Goa frontier and the Kodibag and Sadáshivgad piers (Provincial)...	4,373	597
	Bijápur-Shindgi Road (Local)	1,35,561	2,612
Indus Right Bank Division.	Providing a curtain wall on the down stream side of the Bridge over Western Nára at Abad (Local) ...	863	845
	Widening Jungshai-Bhagar Road Bridges Nos. 2 and 4 (Local)	490	429
	Constructing road bridge over Sadábhar Canal at Taki 360 (Local)	1,549	713

Roads banked, but not surfaced, partially bridged and drained.

Northern Division	... A girder bridge on the Whittle Bandar Road (Local) ...	3,500	2,639

Roads cleared, partially bridged and drained.

Northern Division	... Bridge across the Tenna Creek at Ichápur in Olpád Táluka (Local)	15,488	1,213
Southern Division	... Completing Huvin-Hippargi-Telgi Road—2nd Section (Local)	20,826	346
	Completing road from Indi to Shindgi *viâ* Almel, 1st Section (Local)	54,214	11,197
	Do. Muddebihál-Talikot Road (Local) ...	9,125	1,499
	Do. Devar-Hippargi-Tálikot Road (Local)	18,729	999

Boat-bridges and Ferries.

Indus Right Bank Division.	Constructing sluice over distributary at mile 25-6 Kotri Bund (Local)	186	174
	Constructing slab-drain for trench at Pirpatho-Bághar bank distributary (Local)	104	104

Accommodation for Travellers.

A rest-house at Khánápur on the Belgaum-Shitavda Road section from Belgaum to Kárwár, estimated to cost Rs. 3,155, was commenced. Minor works were carried out in connection with the Travellers' Bungalow at Shadipali.

Arboriculture.

Nurseries were maintained in the Broach, Panch Maháls, Ahmedabad, Khándesh and Bijápur Districts. Planting, watering and fencing of road-side trees continued to receive careful attention. Young plants were destroyed by rats in some of the districts of the Northern Division.

3.—Miscellaneous Public Improvements.

Lighting.

The lighting of the Queen's Parade in Bombay was improved by substituting Washington patent oil gas lamps for the old oil lamps (cost Rs. 6,437).

Water-supply.

The Murbád Water Works were completed (cost Rs. 25,435). The excavation of the Gam Tank at Ankleshvar was carried out by famine labour in 1899-1900, and the construction of outlets and waste weir was commenced as an ordinary work during the year to guard against serious damage occurring to the bank. The whole work was completed during the year (cost

Rs. 6,079). The Surat and Ránder Water-supply Works were in progress. The completed works were handed over to the Municipality. A service cistern and two cattle troughs await construction, pending the settlement of the question of their sites by the Municipality. In all Rs. 9,77,786 have been spent on the scheme. Improvements to water-supply at Yeola were made during the year at a cost of Rs. 811. The wells at Bevinmatti, Koner, Hulgeri and Hire-Muchalgud in the Bijápur District were in progress.

Sewerage and drainage.

The roads and drains on the Esplanade near the Masonic Hall, Bombay, were completed with the exception of filling in a well for which the Municipality has not yet given its permission. In all Rs. 33,251 were spent. The work of widening the Chaupáti Main Road, Bombay, was completed (cost Rs. 6,084). Rs. 3,148 were spent on carrying out the drainage of low-lying lands on the west of Dholka which is in progress.

Surveys.

The following surveys were made and the projects completed:—

1. Road from Bandora to North Dánda.
2. Road from Juhu to Andheri.
3. Road from Kurla to Chembur.

4.—Military Works.

General remarks.

The following stations were under the control of the Public Works Department during the year:—

Ahmednagar, Sirur, Purandhar, Khandála and Sátára in the Poona District; Málegaon, Bhuj, Baroda, Surat and Thána in the Bombay District; Ahmedabad and Rájkot in the Deesa District.

Buildings in the plains.

The shoeing-shed, Royal Field Artillery, Camp Ahmedabad, was provided with a floor of wooden pavement at a cost of Rs. 1,019 against an estimate of Rs. 1,141. A fence of sun-dried bricks and mud with six gates each six feet wide was constructed round the water trough, Royal Field Artillery, Camp Ahmedabad, to prevent stray cattle from drinking at the trough. The work was completed at its estimated cost of Rs. 766. The Ball Alley at Purandhar, which had partially fallen, was rebuilt at a cost of Rs. 3,862. Improvements to Barrack and Hospital cook-houses at Khandála were in progress (estimated cost Rs. 3,440). A new set of fire-places in the second-half of the cook-house in the Fort at Ahmednagar was provided (cost Rs. 106). Wire netting to cook-house doors and windows in the Royal Artillery Barracks at Ahmednagar was provided (cost Rs. 362). A sun-dried brick compound wall to the Royal Artillery horse trough at Ahmednagar was constructed at a cost of Rs. 309. The work of fixing six galvanized iron tanks with brass cocks for water for cooking purposes in the British Infantry Lines was in progress (cost Rs. 531). A corrugated iron roof verandah was added on the east side to the Isolation Ward in the Station Hospital at a cost of Rs. 498. Improvements to Married quarters, No. 67 block, British Infantry Lines at Ahmednagar, were made at a cost of Rs. 189. Improving ventilation of the same was carried out at a cost of Rs. 236. A urinary costing Rs. 176 for Sergeants' Mess for the same was provided. Iron shelves for storage of kits in the reservist store were erected (cost Rs. 1,039).

Commissariat Buildings.

A deal-wood partition in the Supply and Transport Office was constructed at a cost of Rs. 67.

Studs.

Quarters for the Line Overseer of the Remount depôt at Ahmednagar were constructed at a cost of Rs. 7,707. An operating shed in the depôt was erected at a cost of Rs. 618. Pharmacy, colic box and salutries' quarters were erected at a cost of Rs. 3,248. Irrigation shed, sling box, dark box, and salutries' quarters were also constructed at a cost of Rs. 1,606.

Water-supply.

The works at the Páshán Tank as well as pipes, cisterns, &c., for the water-supply of Kirkee, including service pipes in the Military buildings, were maintained at a cost of Rs. 3,244. A slip occurred in the dam of the Páshán Tank and was repaired at a cost of Rs. 2,490. The total estimated cost was Rs. 3,394. The work was in progress. The storage in the tank was sufficient for the water-supply of Kirkee. Construction of a tank and service road at Kápurvádi was completed at a total cost of Rs. 5,29,008.

Fortifications.

A sum of Rs. 1,116, including Rs. 400 spent in 1900-1901, has been expended in collecting materials for the work of removing the centre ties in the Powder Magazine, Camp Ahmedabad, the estimate amounting to Rs. 1,248. The work of providing an eight feet high expanded metal fence to the ditch round the bastions of the fortified post was commenced, and Rs. 4,246 expended in purchasing materials and widening the ditch, against an estimate of Rs. 4,750. The work is practically completed. Improvements to the road between the railway station main road and the fortified post, Ahmedabad, which were in progress in 1900-1901, were completed during the year at a cost of Rs. 1,374 against an estimate of Rs. 1,413. A sliding door to the Machine gun room in the Fort at Ahmednagar was fixed at a cost of Rs. 27.

Minor Works and Repairs.

Special repairs to the road in the Ahmedabad Cantonment were carried out for a total expenditure of Rs. 2,316 against an estimate of Rs. 2,321. No new works of any importance were carried out during the year under report, operations being confined to minor works and maintenance and repairs of existing buildings, water-supply works and Cantonment roads.

5.—Famine Relief Works in Charge of the Public Works Department.

Owing to the failure of rains in the latter part of the monsoon of 1901-1902, it was found necessary to start new or continue unfinished Famine Relief Works. The operations were carried on as far as possible in accordance with the Famine Relief Code.

The following is a summary of the works carried out under the supervision of the Public Works Department.

1.—Provincial Civil Buildings.

Miscellaneous. The construction of kutcha poor-house at Foolzad in Vairamgám Táluka estimated to cost Rs. 3,472 was in progress.

2.—Communications.

Metalled Roads—Bridged and Drained throughout.

		Expenditure during the year.
		Rs.
Northern Division	... Conveying metal from the quarries to the road side on the Harsol-Modása Road (Provincial)	22,972
	Collecting ten years' supply of metal for the Dhandhuka-Ranpur Road (Local)	1,686
	Collecting ten years' supply of gravel for the first ten miles of the Dhandhuka-Ránpur Road (Local) ...	1,660
	Collecting and conveying ten years' supply of metal for the portion of the Modása-Bibipura Road from Dhansura to Bibipura (Provincial).	18,849
	Collecting and conveying 10 years' supply of metal on the Talod-Modása Road (Provincial)	3,003
	Metalling the Godhra-Sunth Road (Provincial) ...	11,798 Famine.
		8,962 Ordinary.
Southern Division	... Collecting metal on the Karád-Chiplun Road (Provincial)	2,845

Metalled Roads—Partially Bridged and Drained.

Northern Division	... Dohad-Limdi Road (Provincial)	6,269
	Metalling the Ladwell Branch of the Kapadwanj-Bibipura Road (Provincial)	12,727
	Dohad-Alirajpur Road (Local)	5,682
	Mehmadabad-Dakor Road (Local)	13,756
	Agas-Borsad Road (Local)	2,514
Central Division	... Improvements to the Nagar-Paithan Road (Provincial)	13,984
Southern Division	... Improving the Halki-Murgod Road (Local) ...	12,603

Unmetalled Roads—Bridged and Drained throughout.

Northern Division	... Jambusar-Tankeria Road (Local)	3,516
	Wágra-Bhuki Road (Local)	12
	Zadeshwar-Sukaltirth Road (Local)	36
	Collecting kunker for the Amod-Pálej Road (Local).	4,103
Central Division	... Improvements to the Ráhuri Station Feeder Road (Incorporated Local)	1,210

Unmetalled Roads—Partially Bridged and Drained.

Central Division	... Completion of the Unfinished portions of the Indápur-Bárámati Road	2,420
	Improvements to the Ahmednagar-Málegaon Road Section I (Provincial) ...	93,691
	Ditto Section II (Provincial)...	13,180
	Construction of the Kopergaon-Puntamba Road (Incorporated Local)	3,07,150
	Improvements to the Shendi-Wámbori Road (Incorporated Local)...	52,900
	Improvements to the Sheogaon-Bodhegaon Road (Incorporated Local)	11,537
Southern Division	... Constructing the Bijápur-Kágwád Road (Provincial) sections from	
	(1) Honwad to Athni...	55,125
	(2) Athni to Kágwád *vid* Shedbal Railway Station...	20,108
	Constructing a branch road from the Bijápur-Kágwád Road to the Shedbal village (Provincial) ...	1,737
	Improving the Murgod-Bail-Hongal Road (Local) ...	51,718
	Breaking metal on the Nipáni-Mahalingpur Road (Local)	19,875
	Breaking metal on the Gokák-Nárgund Road (Local).	16,390
	Improving the Saundatti-Dhárwár Road (Local) ..	30,972
	Improving the Pusesávli-Shingnapur Road, miles 27 to 34 (Local)	1,424
	Improving the Sátára-Pandharpur Road, miles 23 to 31 (Local)	17,339
	Collecting metal and muram on the Sholápur-Hubli Road, 3rd Section (Provincial)	45,769
	Improving the Bijápur-Indi Road—Portion from Nágthan to Hatharga (Local)	20,506

		Expenditure during the the year.
	Unmetalled Roads—Partially Bridged and Drained.	Rs.
Southern Division	... Bijápur-Pandharpur Road	11,057
	Jath-Umrani Road	4,352
	Karad-Bijápur Road	9,156
	Jath-Shegaon Road	2,947
	Roads banked and surfaced with murum or similar material but not drained.	
Central Division	... Pathardi-Moho Road, Section I—Pathardi to Cinchpada (Incorporated Local)	25,029
	Extension of the Visápur-Feeder Road to join the Supa-Párner Road (Incorporated Local) ...	35,708
	Improvements to the Nagar-Annagat Road (Incorporated Local)	3,307
	Constructing the Chincholi-Alkuti Road (Incorporated Local)	6,389
	Constructing the road from Mahi-Jalgaon to Sholápur Frontier	16,299
	Constructing the Jamkheda-Karmala Road up to the Sholapur Frontier (Incorporated Local) ...	79,989
	Extension of the Sheogaon-Bodhegaon Road up to the Moglai Frontier near Sukli (Incorporated Local) ...	6,356
	Improvements to the Kharda-Shrigonda Road from Bhundi to Seena River (Incorporated Local) ...	3,981
	Constructing the 1st Section of the Visápur Feeder Road (Incorporated Local)	1,961
	Improvements to the Ghorda-Kondaibari Road (Provincial)	1,637
	Construction of the Taloda-Shahada Road (Local) ..	1,163
	Construction of the Pimpalner-Warsa Road (Local)...	3,347
Southern Division	... Constructing the Bádámi-Kamatgi Road (Local) ...	18
	Constructing the Bádámi-Kerur Road (Local) ...	10,145
	Constructing the Bagalkot-Sangam Road (Local) ...	24,678
	Constructing the Molwad-Mamdápur Road (Local) ...	30,625
	Constructing the Ukli-Mulwad Road (Local) ...	2,847
	Roads banked but not surfaced—Partially bridged and drained.	
Southern Division	... Improving the Sholápur-Belláry Road, 4th Section (Local)	30,197
	Improving the Sholápur-Belláry Road, 5th Section (Local)	22,703
	Roads Cleared—Partially Bridged and Drained.	
Southern Division	... Completing the Hungund-Nandwadgi Road (Local) ...	19,415
	Roads cleared only.	
Southern Division	... Constructing the Murgod-Vekundi Road (Local) ...	4,245
	Constructing the Anantpur-Navalyal Road (Local) ...	6,253
	Improving the Pátan Tarla Road, miles 1 to 5 (Local)	30,366

State Railways.

The earth-work of the Godhra-Baroda Chord Railway was in progress, the expenditure during the year being Rs. 22,931, and that from the commencement Rs. 1,50,145 (estimate Rs. 1,92,253). The earth-work of the Sábarmati-Ahmedabad-Dholka Railway was completed. The expenditure during the year was Rs. 9,244, including hutting, sanitation, &c., and that from the commencement Rs. 1,70,659 (estimate Rs. 1,63,156).

3.—Miscellaneous Public Improvements.

The following water-supply works were either completed or were in progress as Famine Relief Works.

	Expenditure during the year.
	Rs.
Deepening and improving the tank at Pakhajan in the Broach District	1,782
Reservoir at Muvalia in the Panch Mahals District.	1,09,858
Deepening and improving 19 tanks in the Kaira and Panch Mahals District	2,15,251
Deepening 2 tanks in the Ahmedabad District ...	46,527
Dudhalá Tank in the Khándesh District	167

Some bandhs were constructed for the Jath State by the Agency of this Department, the expenditure during the year being Rs. 6,978.

9. Irrigation.

The expenditure incurred on Irrigation Works throughout the Presidency amounted as in the previous year to 54 lákhs. This outlay was divided between Sind and the Presidency proper in the proportion of 7 to 2.

2. The expenditure of the year was distributed under different heads as under :—

	Rs.	Rs.	Rs.
Imperial.			
Capital—			
Major Works—			
Protective Works	2,08,126		
Productive „	21,34,009		
		23,42,135	
Minor Works and Navigation—			
Works for which Capital and Revenue Accounts are kept		(a) 1,30,037	
Revenue—			
Major Works—			
Protective Works	54,143		
Productive „	6,09,644		
		6,63,787	
Minor Works and Navigation—			
Works for which Capital and Revenue Accounts are kept	4,54,791		
Works for which only Revenue Accounts are kept	9,37,895		
		13,92,686	
Agricultural Works—			
Works for which neither Capital nor Revenue Accounts are kept ...	(b) 7,05,716		
Contribution Works	1,32,380		
		8,38,096	
Construction of Protective Irrigation Works—			
Works for which neither Capital nor Revenue Accounts are kept ...		49,442	
Total Imperial ...			54,16,183
Provincial.			
Capital—			
Minor Works and Navigation...		9,583	
Revenue—			
Minor Works and Navigation...		6,539	
Total Provincial ...			16,122
Grand Total ...			54,32,305

3. The total expenditure is classified as follows :—

	Deccan and Gujarát.	Sind.	Total.
	Rs.	Rs.	Rs.
Works	(c) 4,61,634	(d) 20,34,186	24,95,820
Repairs	(e) 3,53,014	13,74,092	17,27,106
Establishment	3,14,330	7,95,905	11,10,235
Tools and Plant	17,171	82,320	99,491
Suspense Account...	—1,557	1,210	—347
Total ...	11,44,592	42,87,713	54,32,305

Rs.

(a) Inclusive of Expenditure in England 7,167
(b) Do. do. 14,464
(c) Exclusive of Rs. 64 } Receipts on Capital Account.
(d) Do. „ 121 }
(e) Inclusive „ 151 on account of c) Compensation.
Do. „ 1,986 on account of Refunds of Revenue.

1.—Northern Division.

Hathmati Canal.

The area irrigated was 134 acres, against 1,787 acres in 1900-1901, due to insufficient water in the canal owing to scanty rainfall.

Khári Cut Canal.

There was no irrigation on this canal due to there being no flood in the Khári River which is the principal source of supply. Earthwork in connection with the extension of Khari Cut and the improvement of the Chandola Tank was carried out by famine labour, the normal cost being Rs. 16,400. Masonry outlet of the Bokh Reservoir, which forms part of the Khari Cut Extension project, was in progress and cost Rs. 7,975. Certain improvements to the Chandola feeder, and a few minor works consisting of slab drains, &c., were also carried out. Rs. 5,200 were spent in maintaining the Khari sluices. Three tanks were repaired from the ordinary grant (cost Rs. 2,398).

Rs. 8,800 were spent on surveying and preparing projects for repairs and improvements to irrigation tanks in the Ahmedabad and Kaira Districts, for which a special Executive Engineer was appointed. Surveys for 58 tanks in Ahmedabad and 42 tanks in Kaira were made and projects submitted for 51 and 15, respectively.

The work of improving and extending the Chandola Tank of the Khari Cut project was re-opened on 14th November 1901, the total expenditure incurred up to 31st March 1902 being Rs. 2,39,442 against a revised famine estimate of Rs. 2,67,637. The expenditure during the year was Rs. 67,403. The work of extension of the Khari Cut Canal was continued during the year, the expenditure incurred being Rs. 20,340. The Bokh Reservoir in Prantij Táluka was commenced as a famine relief work, the expenditure incurred being Rs. 17,366 against the sanctioned Famine estimate of Rs. 70,763. The improvement of thirty 2nd Class Irrigation tanks was started; of these 28 were in Kaira and Panch Mahâls Districts and two in Surat and Broach District. All these works with the exception of one in Surat and Broach were in progress up to the end of the year. The expenditure during the year was Rs. 3,88,196. An expenditure of Rs. 47,457 was also incurred on (1) Karamsad Drainage Channel, (2) Drainage Channel from Godhavi to Goraj, (3) Drainage Channel at Bogodra in Dholka Táluka, and (4) Chharodia Cut in Dhandhuka Táluka. The total expenditure incurred during the year on all classes of irrigation works in the Northern Division from the grant under 33—Famine was Rs. 5,40,752. Famine Relief Works.

2. Central Division.

The expenditure on maintenance and repairs during the year was Rs. 23,772. Leaks were stopped in miles 26, 66 and 71 of the main canal. Stone pitching was done in several places both on main canal and distributaries to protect the banks from erosion. Four new outlets on distributaries and two distributary heads on the main canal were constructed from rayats' contributions to meet the growing wants of irrigation. The area irrigated was kharif 25,216 acres, rabi 25,836 acres, total 51,052 acres, against 37,763 acres, the average of three years ending 1900-1901. The operations of the year resulted in a net assessed revenue of Rs. 1,85,553, which is equivalent to 3·26 per cent. on the total capital outlay. In the previous year the net assessed revenue and percentage were Rs. 1,28,490 and 2·26 respectively. The year being one of partial scarcity and famine in the Poona and neighbouring districts, the canal did important service by providing food and fodder to irrigating villages and employment to the labourers of villages not possessing irrigational facilities. The kharif area was the highest yet obtained, and though the rabi was exceeded in former years, the total area of the year was only 676 acres less than that of the previous year, which was the highest on record. The chief feature of the year's operations was the growth of the area under sugarcane and revenue: the former was 2,390 acres and the latter Rs. 63,642 more than that of the previous year. The gross revenue, *viz.*, Rs. 2,43,697, was the highest on record. Nira Canal.

The capital expenditure was Rs. 1,934, bringing up the total (direct) to Rs. 19,92,687 against the sanctioned estimate of Rs. 20,24,327. The expenditure incurred was on (1) raising the waste-weir by 0·90 feet, *i.e.*, up to the sanctioned height; and (2) constructing the Pandharpur Branch Canal. Materials only could be collected for the first work which will be completed during 1902-03. As regards the second work, earthwork in mile 6 was completed, thus completing earthwork throughout the whole length of 6 miles. The expenditure on maintenance and repairs, including Rs. 984 spent on the special repairs carried out on the Wakri Branch Canal, amounts to Rs. 5,625. The area irrigated during the year was kharif 5,529 acres, rabi 2,751 acres, total 8,280 acres, against 8,533 acres, the average of the past three years. The operations of the year resulted in a net revenue of Rs. 10,724, which is equivalent to 0·54 per cent. on the capital invested, against Rs. 10,666 and 0·64, respectively, of the previous year. Mhaswad Tank.

The work remained suspended during the year pending sanction to the revised estimate. The charges during the year were on account of maintenance of works and buildings. Chankapur Tank.

This work, which is nearly completed, came into operation in the rabi season of this year. The area irrigated in that season was 337 acres. Shetphal Tank.

The work carried out by ordinary labour consisted of excavation of puddle trench and waste-weir. A store-house was constructed and the Overseer's quarters are nearly completed. A Light Railway was purchased for conveyance of materials, such as khandkies, &c., from quarry to site of work. The total expenditure incurred and debited to the capital account of this work was Rs. 46,992. Revised project for this tank is under preparation. Maladevi Tank.

The area irrigated in dry-crop land was 404 acres kharif and 158 acres rabi, against 357 and 579 acres, respectively, in the previous year. The tank storage was very limited and insufficient to meet the full requirements of the land classed as permanently irrigated and had therefore to be distributed by a strict system of rotation after the monsoon. This necessitated the restriction of rabi irrigation in dry-crop land. The increase of irrigation in this land in the kharif season was due to deficient rain in September. The maximum storage in the tank during the year was 140·12 million cubic feet against 190·29 million cubic feet in the previous year, 342·4 million cubic feet being the full supply capacity. The net revenue was Rs. 9,277 against Rs. 10,276 in the previous year. Lower Panjhra River Works, Mukti Tank.

The dam embankment of the Waghad Tank has this year been raised to the full designed height throughout except at the safety cut 100 feet in length. Foundation trenches of waste and lower weirs were excavated. The capital expenditure was Rs. 10,342. The temporary masonry wall 110 feet long constructed last year served again as waste-weir this year. The plank shutters in the centre were again used to raise the level of water over sill, but not to the same extent as last year, there being no rain in October. Kadwa River Works, Waghad Tank.

Palkhed Canal. A sum of Rs. 500 was expended on surveys for the revised canal project. The area irrigated was kharif 1,290, rabi 1,291, total 2,581 acres, against 2,073 acres (kharif 305, rabi 1,768) last year.

Wadali Canal. A survey was made for a revised project. The area irrigated was kharif 330, rabi 357, total 687 acres, against an average of 380 acres.

Ojhar Tambat Canal. Survey was made for a revised project. The area irrigated was kharif 474, rabi 166, total 640 acres, against 439 acres, the average of the three years ending 1900-1901.

Lakh Canal. The area irrigated was kharif 181 acres, rabi 379 acres, total 560 acres, against 1,005 acres, the average of the three years ending 1900-1901. The decrease from area of 1900-1901 in the kharif season was chiefly due to the decrease in the area of bájri crop owing to timely and favourable rainfall, and that in the rabi season to insufficiency of the river supply.

Mutha Canals. The work of providing a set of eight automatic gates for the waste-weir of Lake Fife, commenced last year, was completed during the year under report. Attempts were made to stop leakage and waste of water in several places in the first 16¼ miles of the Mutha Right Bank Canal and the first ten miles of the Left Bank Canal, and the banks were strengthened by stone pitching. Surveys for increasing the storage of the Mutha Canal were in progress, and those for improving the Poona Water Supply were completed during the year. The area irrigated was kharif 9,939 acres, rabi 531 acres, total 10,470 acres, against 8,325 acres, the average of the three years ending 1900-1901. The operations of the year resulted in a net assessed revenue of Rs. 2,14,675, which is equivalent to 3·20 per cent. on the capital invested, the figures for 1900-1901 being Rs. 1,90,142 and 2·85 respectively. Owing to short supply of water, irrigation below the 25th mile of the Mutha Right Bank Canal was stopped from 1st April to 15th June 1901 and again from 31st January to 31st March 1902. The arrangements introduced in the previous year to supply water in 10 days' rotation for sugarcane was in force and resulted in minimising complaints from cultivators. The principal feature of the year's operations was the increase of area under sugarcane which has regained the position it occupied before the commencement of the famine of 1896-97.

Ekruk Tank. The expenditure under Maintenance and Repairs was Rs. 4,781, including certain special repairs. The area irrigated during the year was kharif 2,063 acres, rabi 2,672 acres, total 4,735 acres, against 1,937 acres in the previous year and 3,598 acres, the average of the past three years. The operations of the year resulted in a net revenue of Rs. 17,195, which is equivalent to 1·40 per cent. on the capital outlay, against Rs. 16,115 and 1·31, respectively, in the previous year. Remissions amounting to Rs. 1,065 were given on account of failure of crops due to want of water in the tank, and refunds amounting to Rs. 1,005 were also given on the same account.

Hartala Tank. At the beginning of the year the tank was empty. It began to fill from 8th July. The maximum storage of 12·44 million cubic feet against 134·9 million cubic feet, full supply capacity, was reached on 5th September. The total area irrigated was 27 acres, being only half the area irrigated in the previous year. The diminution is due to limited supply of water in the tank. The net revenue amounted to Rs. 577 against Rs. 203 in the previous year.

Mhaswa Tank. The tank was practically full at the end of the monsoon. The area irrigated was 141 acres in the kharif and 266 acres in the rabi season, total 407 acres, against 378 acres in the previous year. The increase was in the kharif season owing to scanty rainfall in September and revival of sugarcane plantation. The net revenue shows a deficit of Rs. 748, as owing to the famine pressure just passed there is a pretty large amount outstanding. There was a small increase in working expenses for repairs to certain damage to the work by the labourers in the large famine camp near the work.

Jamda Canals. There was a small outlay on the survey of a site for a superpassage in the first mile of the Left Bank Canal proposed at a point where an inlet brought in the drainage of the surrounding land and caused silting. The cost of the proposal was, however, found out of proportion to the cost of annual clearance and it had therefore to be given up. The area irrigated was 1,748 acres against 3,757 in the previous year. The decrease is due to scanty supply of water in the Girna River, which not only affected the cultivation of perennial crops, but was insufficient to meet the requirements of rabi irrigation. The revenue realized during the year amounted to Rs. 7,877 against 6,284 in the previous year.

Parsul Tank. The tank began to fill from the 26th May and by the 6th July the maximum storage of 18·52 million cubic feet against the full supply capacity of 118·70 million cubic feet was reached. The fall began on the 9th July, and by 3rd October the supply went below the sill level. On the 17th October a heavy fall of rain in the catchment (2·75 inches) brought a storage of 8·15 million cubic feet. The total area irrigated during the year was 217 acres against 743 acres in the previous year. The decrease is due to shortness of storage in the tank.

Ojhar Left Bank Canal. The area irrigated was kharif 5,672 acres, rabi 2,233 acres, total 7,905 acres against 5,518 acres, the average of the three years ending 1900-1901. The increase in the kharif season was chiefly due to the increase in the area of bájri crop owing to scarcity of rain and the decrease

in the rabi season was due to insufficiency of the river supply. Remissions amounting to Rs. 1,478 were given for failure of crops during 1899-1900 to 1901-1902.

The area irrigated was kharif 525 acres, rabi 512 acres, total 1,037 acres against 884 acres, the average of the three years ending 1900-1901. Bhatodi Tank.

The area irrigated was 1,931 acres kharif and 697 rabi or a total of 2328 acres, the average total area of three previous years being 2,014 acres. The operations of the year resulted in a net assessed revenue of Rs. 9,531 which is equivalent to 4·73 per cent. on the capital invested against Rs. 5,897 and 2·93 respectively for 1900-1901. Matoba Tank.

The area irrigated was 68 acres of kharif and 138 acres rabi or a total of 206 acres as against an average total area of 68 acres in the three previous years. Kasurdi Tank.

The area irrigated was 768 acres of kharif and 650 acres rabi or a total of 1,418 as against an average total area of 888 acres in the three previous years. Shirsuphal Tank.

The area irrigated was 693 acres of kharif and 86 acres of rabi or a total of 779 acres the corresponding average for the three years ending 1900-01 being 1,344 acres. Bhadalwadi Tank.

The area irrigated was kharif 168 acres only against 201 acres, the average of the last three years. The whole of the water in the tank was used. The operations of the year resulted in a loss of Rs. 425. The results are not satisfactory. The storage in the tank is very limited and not reliable in years of drought. The earthen dam is of old construction and leaks to a great extent. The land under command is favourable for irrigation. Koregaon Tank.

The work of restoring the dam to its original designed height at R. L. 244·00 and widening it from 6 feet to 8 feet at top, which was undertaken as a Famine Relief work in 1899 was completed. The total famine expenditure from the commencement is Rs. 1,41,850, the value of work done at normal rates debited to Extensions and Improvements being Rs. 39,903. The expenditure under Maintenance and Repairs was Rs. 1,833. The area irrigated was kharif 424 acres, rabi 1,483 acres, total 1,907 acres, against 2,726 acres, the average of the past three years. The operations of the year resulted in a loss of Rs. 4,159, which is due to the heavy expenditure on account of the restoration of the dam. Ashti Tank.

Famine Relief Works.

The Shetphal Tank was in progress as a relief work from 1st April to 31st October The total famine expenditure was Rs. 1,44,961 and the value at normal rates of work done was Rs. 63,022. The dam in the nala gorge has been closed and the embankment over the whole length brought up to full supply level, about 45 chains being completed to the full designed height. The distributary channel from the tank was completed as regards earth-work, and about three-fourths the number of masonry works on the channel were also completed. The Khamgaon Tank was in progress as a relief work from 1st April to 2nd October. The total famine expenditure was Rs. 65,758 and the value of work done at normal rates amounted to Rs. 14,291. The Victoria Tank at Warwand was also in progress from 1st April to 27th October. The total famine expenditure was Rs. 1,05,604 and the value at normal rates of work done was Rs. 38,013. Poona District.

The only famine work started during the year was the Odal Tank in the Chandor Táluka. It was opened on 6th March and closed on 30th October 1901. The work done included excavation and filling of puddle trench. The total expenditure during the year was Rs. 19,842. Násik District.

The Pathri Tank, which was first commenced in the famine of 1897 and closed at the end of 1898, was again started as a relief work in 1899, and was in progress till November 1901 when it was closed as a famine relief work the prospects in the Barsi Taluka having improved. The outlet has, however, been restarted as an ordinary Public work. In the early part of the year under report the river closure was taken in hand. The work done was very nearly washed away by a sudden flood in April: the flood came on at night but the Assistant Engineer in charge got together all available labour and thus saved the work. The work was then pushed on vigorously and the dam was soon raised to a safe height. A temporary waste-weir was provided at the site of the outlet. So far as the tank itself is concerned it is now complete except for the finishing of the outlet and the closure of the gap at the temporary waste-weir and works connected therewith but nothing has been done as regards canals for leading water off. Famine expenditure during the year was Rs. 1,23,830, and total from the commencement Rs. 7,28,687. Ordinary expenditure on the completion of the outlet was Rs. 1,756. The dam of the Mangi Tank left unfinished at the end of the last year was resumed on the numbers in need of relief increasing. The excavation of the concrete trench was also taken in hand and had progressed to a depth of 10 feet when it was filled in by the sudden flood in the river at the end of April 1901, after which this work was abandoned. The expenditure during the year was Rs. 77,818 exclusive of gratuitous relief and Engineering Establishment. The highest number employed at one time was 9,716 on 24th July 1901. The Wadshivane Tank was in progress as a famine work up to 12th March 1902 when the number fell so low that there were no hopes of getting the work completed before the rains. It was then converted into an ordinary Public work. The work of river closure was completed during the year and the masonry of the outlet was pushed on, a temporary waste-weir having been constructed at the site of outlet. The Sholápur District.

work of the Inspection Bungalow and the road from the tank to Kem Railway Station was also nearly completed. Pitching was pushed on as far as was possible. The famine expenditure amounted to Rs. 78,950 exclusive of gratuitous relief and Engineering Establishment. The ordinary expenditure was Rs. 1,644. The highest number of relief workers was 6,447 on 14th May 1901. The gap at the temporary waste-weir has since been closed as an ordinary work, the pitching is now above full supply level and will soon be finished, and there is very little remaining to be done to the waste-weir channel. Detailed surveys for the Right Bank Canal are in hand. The Hotgi Tank was in progress as a famine relief work. In the construction a layer of pure sand, was met with varying in depth from 7 to 5 feet near the stream which is being dammed. The whole of this layer was removed for the whole width of dam and the embankment was reseated on proper bed. The embankment on both the sides of the concrete trench was completed so as to bring it everywhere above the highest flood level of the nala. The work was closed for famine relief on 27th July 1901. The maximum numbers of workers were 2,140 on 4th July 1901. The expenditure during the year was Rs. 24,608 exclusive of gratuitous relief and Engineering Establishment. On the Budhihal Tank the works of embankment of dam, excavation for waste-weir, concrete filling for outlet, drainage gutters, excavation for puddle and concrete trenches and filling in puddle trench, were in progress during the year. The highest number of workers was 24,837 on 24th July 1901. The expenditure during the year was Rs. 3,26,366 exclusive of gratuitous relief and Engineering Establishment. On the Bhamburdi tank the excavation and filling in of the puddle trench for the whole length of dam were completed. The work of embankment was in progress throughout the whole length except the nala beds. Excavation for concrete trenches was carried out in both the nalas: filling in concrete was almost completed in nala No. 1, but the work done in nala No. 2 was lost, a sudden and unexpected flood filling in the trench. Excavation for foundation of outlet and filling the same with concrete were also completed. The maximum number of workers was 10,453 on 28th June 1901. The expenditure during the year was Rs. 1,23,679. The work was closed for famine relief on 13th November 1901, but has again been since re-opened. The Karkamb Tank is an old village tank which has not been repaired for many years. It was proposed to improve it by clearing silt, remaking the delapidated portions of embankment and providing a proper waste-weir so as to make the tank useful for water-supply. The work was commenced as a famine relief work on 5th August 1901 and was closed on 16th October 1901. It was however again started. The earth-work done during the year amounted to 4,55,200 c. ft. and the muram casing to 1,04,800 c. ft. The cut leading to the nala was improved and an open waste-weir was excavated. Silt was cleared to a depth of 2 ft. The expenditure during the year was Rs. 19,659 exclusive of gratuitous relief and Engineering Establishment.

Surveys.

Surveys at the following tank sites were made by the surveyors sent by the Superintending Engineer on Special Duty :—Bhamburdi Tank, Gardi pick-up weir, Kolegaon Tank, Ahirgaon Tank, Karkamb Tank, Mangi Tank. In respect of Bhamburdi Tank surveys of several contours were made to complete the data for ascertaining the capacity of the tank. Regular surveys were also made for the first few miles of the left bank canal. At Gardi preliminary surveys were made to ascertain the capacity of the tank and the land under command on the left bank. At Kolegaon lines of levels were run with a fall of 3 ft. per mile to find out the area commanded by the tank. At Karkamb and Ahirgaon preliminary surveys were made for the dam line, waste-weir, and tank capacity. Surveys for determining area of land under command were also made for the Karkamb Tank. At Mangi a few miles of a canal line were surveyed on the right bank starting from a higher outlet level than that taken in the original design. The reduced levels of the tank were connected with the Bench Marks of the Trigonometrical survey : also fly levels were taken along certain roads near Karmala to ascertain the probable location, when extended, of the Sina Right Bank Canal surveyed in the Ahmednagar District.

Ahmednagar District.

The Ojhar Right Bank Canal was opened for famine relief purposes during 1899-1900 and continued through 1900-1901 and again this year. The earth-work was completed up to the end of the 31st mile: that in the 32nd mile was completed as far as 42 chains and in the 33rd mile as far as 43 chains. The maximum number of workers employed was 24,664 on the 10th April 1901, and the expenditure was Rs 2,50,827 (including Musalwadi Tank) and to end of the year from commencement of the work Rs. 10,54,909. The Musalwadi tank is a storage tank in connection with the Ojhar Right Bank Canal. It was opened for famine relief purposes in December 1899 and continued during the year under report. The excavation and filling in of the puddle trench was completed. The work of embankment was in progress. The maximum number of workers employed was 6,522 on the 4th September 1901. The Visapur Tank was re-opened for famine relief purposes on the 7th December 1899 and continued through 1900-1901 and again this year. The dam has been raised on the Right Bank from chainage 1500 to 2300 and 2500 to 3000 to R. L. 2044. On the Left Bank it is nearly completed from chainage 5800 to 6000. From chainage 6000 to the end of the dam, *i. e.*, chainage 8400, the portion of the dam was completed to its full height. The last 10 chains were completed during the last year. The work of waste-weir was in progress. The maximum number of workers employed was 12,894 on the 24th July 1901, and the expenditure was Rs. 2,81,219 and to end of the year from commencement of the work, Rs. 8,79,233. Rs. 7,174 were expended in the excavation of the Right Bank Canal. This is not to be continued as sufficient area is not under command. The canal on the Left Bank has been chosen.

Rs. 1,830 were expended on the surveys for extension of the Ojhar Left Bank Canal, and the Visapur Right Bank Canal. Surveys.

The 191 old bandharas in charge of the Public Works Department irrigated 17,817 acres producing a revenue of Rs. 80,804. The expenditure on original works was Rs. 1,132, and on repairs, Rs. 447. *Second Class Works.* Násik District.

Repairs to the Savargaon Bandhara in the Akola Táluka were in progress. The expenditure incurred was Rs. 542. Ahmednagar District.

Rs. 12,466 were spent on improvements, and Rs. 2,042 on repairs to old works. Khándesh Irrigation District.

The Raipur Tank project which was taken in hand in the past famine remained suspended during the year. The plans and estimates have yet to be revised and the project to be formally drawn up. Same is to be done regarding the Purmapada Tank project. This work had to be resumed during the year for relief purposes. The expenditure amounted to Rs. 779. The Talwada Tank work is complete save the waste-weir and the distributaries. The waste-weir work is in progress. The expenditure on it during the year was Rs. 330. The plans and estimates for the distributaries are under preparation. This tank filled up to 5·70 ft. above the outlet sill against 24·15 ft. of the full supply depth. The construction of an outlet to the Khirdi Sate Tank has been commenced and an expenditure of Rs. 7,953 incurred during the year. The work is nearly completed. The survey for a line of canal from the tank has been completed at a cost of Rs. 158 to be included in the revised project which is under preparation. Works for which neither Capital nor Revenue Accounts are kept.

3.—Southern Division.

The area irrigated, 5,318 acres, was 2,970 acres less than that of the previous year in consequence of seasonable rainfall. Krishna Canal.

The area irrigated fell, in consequence of the favourable rainfall, from 717 acres in the previous year to 662 acres, but the decrease in irrigation was in the more lightly assessed crops and the assessment rose from Rs. 3,062 to 3,599. Rewári Canal.

The area irrigated and the water rate assessment were respectively 882 acres and Rs. 2,891 against 888 acres and Rs. 1,932 of the previous year. Upper Man River Works.

The work of extending the Yerla Right Bank Canal was completed at a total cost of Rs. 25,302. The construction of an additional length of waste weir to close the existing gap at Nehr Tank is still in progress, and a berm in rear of Nehr Tank Dam was partly constructed by famine labour. The area irrigated and the water rate assessment were respectively 3,185 acres and Rs. 14,565 against 3,551 acres and Rs. 9,778 of the previous year, the effect of the decrease in area being more than compensated by the rise in the class of irrigation. Yerla River Irrigation Works.

The area irrigated and the water rate assessment were 411 acres and Rs. 6,841 against 536 acres and Rs. 1,385 of the previous year. Chikhli Canal.

The earthwork of the dam and the stone-pitching were completed. Owing to the accumulation of silt in the tank it will be necessary to raise the waste weir, and to ascertain the nature of foundations; trial pits are being excavated. The area irrigated and the water rate assessment were respectively 1,672 acres and Rs. 5,881 against 1,415 acres and Rs. 3,613. Maini Tank.

The rainfall gauged at the tank was 12·50 inches against 20·22 inches in the previous year, and the highest level of water was 7·58 feet above the sill of sluice, as compared with 10·38 feet in 1900. The area irrigated and the water rate assessment were 140 acres and Rs. 454 respectively. Muchkundi Tank.

The supply was insufficient in the first half of the year but ample afterwards, the area irrigated and water rate assessment being 204 acres and Rs. 583 respectively. Dambal Tank.

There was no demand for water owing to seasonable rainfall. The area irrigated and the water rate assessment were 54 acres and Rs. 376 respectively. Medleri Tank.

The water level in the tank was 1·40 feet above sill level on 1st April, but the supply was sufficient for all requirements. The tank filled early in the year, and the waste weir flowed continuously for about 6½ months. The highest flood level was 11 feet above sill level on the 10th July 1901. The area irrigated and water rate assessment were 892 acres and Rs. 2,115 respectively. Madag Tank.

The supply was fair on the whole, but replenishments were received too late to permit of sugarcane cultivation. The work of pitching the dam is in progress. It could not be completed owing to the water level not having fallen sufficiently low. The area irrigated was 179 acres, the water rate assessment being Rs. 817. Asundi Tank.

The work of constructing a sluice gate and irrigating channel was completed at a cost of Rs. 2,074. Mavinkop Tank.

Capital expenditure was incurred in extending Distributary No. 1 of the Gokák Canal (Shendi nála extension). The tank overflowed on the 29th April 1901, and the maximum flood of the year occurred on the 9th July 1901, when the water level rose to 2·24 feet above the present weir crest, the discharge being estimated at 30,905 cubic feet per second, equal to a Gokák Canal Storage Works.

run-off of 0·04 inch per hour from the whole catchment basin (1,080 square miles). The storage was first drawn upon on the 5th December 1901. The area irrigated was 14,335 acres, as compared with 10,508 acres in 1900-1901, showing an increase of 36 per cent., partly due to better supervision on the part of the establishment, and greater facilities for taking water offered to the irrigators during the kharif season, and partly due to the greater demand for water owing to successive years of light rainfall. The water rate assessment amounted to Rs. 37,135, being an increase of 41 per cent. over the previous year. The work of the Shendi nála extension was practically completed during the year, and about 105 acres were irrigated by this branch during the rabi season.

Government having granted permission to the Mills Company to raise the level of their pick-up weir from R. L. 1984·50 to R. L. 1985·50, it became necessary to raise the gauge notch and walls of the measuring chamber below the main sluices and of the Konur Ford by one foot. The former work was completed in March 1902 at a cost of Rs. 1,841 against the estimate amounting to Rs. 1,844, and the latter was in progress. The cost of both has been borne by the mills.

Second Class Works, Bijápur District. Trial pits were excavated in order to locate the leakages in the waste weir and dam of the Mamdapur Tanks.

Belgaum District. Eight irrigation tanks were repaired and fifteen tanks were surveyed, the cost of surveying and lining out work being Rs. 739.

Dhárwár Irrigation District. Work was continued on repairs to 34 tanks. Of these some were completed and some are in progress. There were no disputes about water distribution on the Dharma and Naregal Canals, and all the tanks dependent on them received several replenishments.

Kánara District. Repairs to three tanks were completed during the year.

Ratnágiri and Kolába Districts. Petty repairs were effected to two tanks in the Ratnágiri District and to the masonry dam at Borvi in the Kolába District.

Surveys. Surveys were taken in hand in the Belgaum District, with a view to devise a scheme for protecting, to some extent, the Athni Táluka by the construction of a large irrigation work.

Famine Relief Works. Bijápur District. Famine work was in progress on the Sangogi and Hullur Tanks, the total expenditure being Rs. 2,52,574.

Sátára District. Work was in progress on the Goregaon tank by famine labour on excavating the puddle trench and removing treacherous soil below the rear half of the dam.

4.—Work done by the Superintending Engineer on Special Duty.

The Government of India directed in Revenue and Agricultural Department (Famine) Resolution No. 3—61—1-F of 13th March 1901, that certain preliminary investigations should be carried out in connection with the protective value of existing irrigation works and the possibility of making a more extensive use for agriculture of the water-supply available in the country. The result of these investigations was to be submitted to Government in time to be placed before the Indian Irrigation Commission, whose enquiry was to begin in the ensuing cold weather.

The Bombay Government were requested to confine their investigations to the Presidency proper, Sind being practically immune from famine, and they deputed Mr. H. Beale, Executive Engineer, First Grade, who returned from furlough on the 19th May 1901, to carry out the work. He was given the rank of Superintending Engineer on Special Duty, and received assistance as follows :—

1. Mr. L. M. Bose, Executive Engineer, Third Grade (from 11th June to 17th July 1901). This officer being in delicate health was replaced by Mr. E. M. Proes, Assistant Engineer, Second Grade. This officer worked from 17th July to 27th September 1901, and was then transferred to Sind to hold charge of a district; and

2. Mr. F. K. McClean, Assistant Engineer, Third Grade (from 16th June 1901 to 6th February 1902).

The two Assistants were engaged in the Central and Southern Divisions, and collected the information required by visiting each district head office and consulting the Executive Engineers in person.

The Superintending Engineer also made personal enquiries, as far as possible, but a great deal had to be done by correspondence, and besides Public Works Department officers, the Revenue and Agricultural Departments were referred to frequently for figures, statistics and opinions, and notes and data were also generously contributed by some official and non-official gentlemen.

A number of temporary surveyors were employed to carry out, under the guidance of the local Executive Engineers, some rough surveys to give an idea of the value of certain projects. The work done was of very variable quality, and being carried out during the monsoon was of course liable to interruptions. The level books, &c., are with the Executive Engineers of each district.

The whole cost of the investigations, as shown by the audited accounts from the 19th May 1901 up to the 1st February 1902 was : Works, Rs. 4,185 ; Establishment, Rs. 38,145 ; —Total Rs. 42,330.

The Report called for was printed in time for the first sitting of the Indian Irrigation Commission on the 28th November 1901, at Rajkot. A small volume containing additions and corrections was issued in March, bound up with the maps which had been supplied in the interval. The following short summary shows the scope of the Report.

Part I deals with the possibility of constructing large and small irrigation works in the Presidency, and indicates how the conditions of the country regulate the nature of the work to be adopted. The bundhara and small tank system are described; large and small field bunds are dealt with, the latter particularly as a form of agricultural improvement, deserving encouragement. The question of wells for irrigation is treated with respect to the source of supply, cost and irrigating power, and a comparison is made of the various methods of lifting water. In connection with a record of recent famines and their effects on irrigation, the difficult question of the protective value of irrigation works is discussed, but so far no very satisfactory gauge of this value has been obtained. Particular stress is laid on the urgent necessity of a strong establishment for surveying new projects, and on the report of the Indian Irrigation Commission the Government of India directed that these surveys should be commenced.

Part II consists of a series of notes in elucidation of the remarks previously made, and in some cases indicating the direction in which observations might be carried out for the purpose of obtaining more scientifically accurate data for the preparation of projects.

Part III deals in detail with each district likely to be affected by famine, quoting first the local officers' views on the required and possible protection of the affected tracts, and then giving condensed extracts from the Bombay Gazetteer and Statistical Atlas, describing the nature of the district, and the conditions influencing its agriculture. This is followed by a short history of the surveys carried out for works, which have not been constructed, and the history serves to show in all cases that constant efforts have been made to discover useful irrigation schemes. Next, the constructed works are enumerated, and they are described very briefly, indeed, in order to reduce the bulk of the volume. For full details the printed Government reports of the works can be referred to. Finally, the works in progress and proposed are given, and an effort has been made to mention every scheme that has ever been suggested. A very large number of these schemes have had to be rejected, but the more promising ones are described. When details were available, these are given and the probable revenue and protective value of the schemes estimated.

Part IV contains a large number of tables giving figures for the works in operation during the last 10 years. These are followed by a similar set of figures for works in progress and proposed. The report is accompanied by a map of the Presidency and 15 district maps. The famine maps were omitted, as they did not differ much from those published in the Statistical Atlas. Copies were submitted to the Indian Irrigation Commission and to Government, of these maps, as well as large scale (two miles to an inch) district maps showing the exact position and command of the various irrigation schemes.

The Superintending Engineer on Special Duty accompanied the Indian Irrigation Commission on their tour in the Bombay Presidency, which was completed at Dhárwár on the 13th January 1902, and Government then directed him to arrange for carrying out the surveys of some of the more promising protective schemes. The previous staff of temporary surveyors had been disbanded, and it took some time to collect fresh men, and there was considerable difficulty in getting instruments, tents, &c.

In the meantime famine conditions were becoming very serious in Gujarát, and Mr. Beale was deputed to discuss with the Commissioner and Superintending Engineer, Northern Division, the possibility of starting some large works in the Panch Máhals, and a fresh work in the vicinity of Ahmedabad. Three surveyors were in consequence employed on examining the Sabarmati River to determine the best site for the head-works of the proposed canal, and the Superintending Engineer on Special Duty made a personal reconnaissance in the Dohad and Jhalod Mahals. A report, explaining what could be done in the latter districts, was sent to Government, and it was decided to elaborate two or three of the smaller schemes, as being more likely to be completed by famine labour than large projects. A sub-engineer and three surveyors were engaged on this work, and the Superintending Engineer, Northern Division, lent the services of Mr. Marr, Assistant Engineer, for a short time.

One project was rapidly surveyed and sufficiently elaborated to enable it to be started, if required, as a famine relief work. Survey work on this and two other projects was still in progress on the 31st March 1902.

At the end of the official year the establishment for the Nira Right Bank Canal and Tank surveys, *viz.*, one Assistant Engineer, one sub-engineer and four surveyors, were started off with full instructions, and arrangements had been made for one sub-engineer, one L. C. E., and four surveyors to begin work on the Gokak Canal Extension and Tank Storage Scheme.

The cost of the Special Duty Surveys from the 1st February to the end of March was Rs. 6,908.

5.—*Sind.*

Character of the Inundation.

The inundation of 1901 did not compare very favourably with that of the previous year (which was a record), but it can be called a good average season. The fair irrigating level at Bukkur was reached on the 27th July, a week later than in the previous year, and the fall below that was on 10th September, or three weeks earlier than in 1900; still the fair irrigating level was sustained for 42 days, or the exact average duration for the previous 11 years.

The highest level reached was 16·40 feet on 15th August, two feet higher than the maximum of 1900, and there was momentary alarm with some damage to the embankments, but the flood quickly subsided, the river falling nearly 4 feet in a few days.

6.—*Indus Right Bank Division.*

Desert Canal.

The remodelling of this canal was vigorously pushed on, the works carried out during the year being originally intended to have been spread over two working years. All sanctioned works will be completed in the present season, with the exception of the Adiowah, which is in reality an independent canal taking off from the Indus above the head of the Desert Canal.

The chief feature of the year's work was the construction of two canals in Baluchistan, north of the British frontier, namely the Uch and the Manuti Rajwahs, respectively, 29½ and 9 miles in length, the land required for which was given by the zamindárs free of cost. The outlay (works) was Rs. 3,22,477. The canal was opened on the 4th June, but as the zamindárs were not ready, a breach occurred in mile 58, and so water was shut off immediately. The canal was fed from the original mouth, but the 1891 mouth was kept cleared in case of emergency. The working during the past season has fully justified the remodelling. The karias in the first 7 miles were not opened till the middle of July owing to the impossibility of admitting water at a high level, but the supply in the lower part of the canal was excellent. On the new Frontier Rajwah the young crops were twice destroyed by locusts and crickets.

Unhar Wah.

The widening and extension of the Tangwani branch and its head regulator commenced last year were completed at a cost of Rs. 12,212. As the section of the canal was insufficient for the discharge required to irrigate the land settled on it, the widening of the Saifal branch and its head regulator was put in hand, the outlay being Rs. 3,001. The canal was opened on the 1st June, but only a small supply of water was admitted till the 20th as the cultivators were not ready. As the water in the Dhand fell in the first ten days of July the supply was insufficient, but after that to the 17th August there was enough water. The supply fluctuated till 27th August, but was again sufficient till the 8th September, after which it fell rapidly. The water in compartment No. 4 was drained into the canal to help the rabi cultivation, which ought to be up to the average. The kharif supply was good except in the first 9 miles and miles 17 to 23, which, however, received water by rotation for 20 days in September and during the whole of October.

Begari Canal.

As in the case of the two above-mentioned canals, the cultivators were not ready to take the water which was admitted on the 3rd June, and the regulators at the head, 19th and 36th miles, were therefore closed from the 7th to the 21st. During the season the head regulator was closed for 4 days in July and 3 days in August. The maximum full supply was 12·5, and the average discharge was 4,538 cusecs as against 5,398 cusecs in the previous year. On the whole the canal did not work well, it only flowed over Full Supply Level (12 feet) for twelve days in August. The rapid fall of the river from the 9th September affected the prospects of the rabi as well as the kharif crops. The jowári crop in the early part of the season was injured by locusts and grasshoppers, but the land was resown. Only four small breaches occurred, which caused no inconvenience. On the 4th May a heavy hill-flood of the Lebo Nai breached the Eden Wah in two places, and on the 9th the Bag and Kabalo Nais came down in flood, and all the country near the Sir and Eden Canals was 2 feet under water.

Mahi Wah.

This new canal was commenced in December 1900, and enough progress was made with the works by the end of May 1901, to admit of the opening of the first 30 miles of the canal and of the Dehar Wah Feeders on 18th June. It is hoped that the resulting revenue of the year may amount to about a lákh of rupees.

During the succeeding working season of 1901-1902 all the remaining earthwork of the canal and of the protective embankments was completed, as well as some of the more important of the masonry works, and it is expected that the canal will run with full supply in the inundation of 1902.

The estimate (Works) of the project amounts to Rs. 7,64,749; expenditure of the year Rs. 3,42,853; total outlay to end of 1901-1902, Rs. 5,08,478.

Sukkur Canal.

The Rahuja head was opened on the 10th June, but as the river was low and the supply inadequate, the old head near Sukkur was opened on the 4th July and remained so till the 25th. When the river rose, the Dhareja and Mahar dhands brought an abundant

supply of water to the Rahuja head till the 18th August, when they ceased to flow. The old head was then opened for the rest of the season. In September the top leaves of the regulator were raised to save the standing crops. There were some breaches in June at the tail of the canal, owing to the silt clearance of some of the branches not having been completed in time, but these breaches were closed by the zamindárs, and no damage was done to the cultivation.

Ghar Canal.

The chief works of the year consisted of the construction of an inspection chowki with out-houses and office room at Naodero; masonry head over Karia Lundi *ex* Kur Hashim; a baulkshed at mile 2 Ford Wah; and a new regulator over the Ford Wah. The outlay on works was Rs. 28,169. The canal was opened on the 15th May. There was no erosion at the head of the canal, and the river maintained its course, so that the canal worked very well during the season. The highest gauge reading at the mouth was 13·5, a record for several years. Although the Ford Wah silted up 2 or 3 feet in the beginning of the season, as the river changed its course, the canal scoured away its silted bed, and so the supply which was carried to the Ghar Canal was very plentiful. There were no breaches of any consequence, and no serious damage was done to cultivation, the small cultivated area that was at all submerged being soon covered with rice cultivation. The erosion at the head of the Ford Wah, which has caused so much anxiety in the past two years, suddenly ceased after getting close up to the head regulator. This work was thought to be doomed, and a second regulator a mile back down the canal with a new loop-bund was constructed. But the river went away just when the destruction of the regulator seemed imminent, and the work is still standing and seems, for the present, to be out of danger.

Sind Canal.

The principal works of the year were:—The construction of an embankment along the right bank of the auxiliary feeder to the canal to prevent silt being deposited by the floods entering it, the construction of a sluice over a zamindár's karia and the widening of the tail portion of the Mungir Wah. The canal was opened on the 1st June with 2½ feet of water, and ceased to flow on the 8th November. It worked satisfactorily throughout the inundation. Rotation was adopted in the tail portion of the system in the Naushahro Abro Táluka and was very successful.

Western Nara.

The chief works on this canal were:—Improvement of the branch Raj Wah of the Western Nara, making a new mouth for the Dingri Wah, excavation of Juberji Branch from the main canal, construction of a regulator with channel at the mouth of Mulo Khamiso escape and the construction of a new chowki at Daim Miani at the tail of the canal. As there was a rapid rise of the river in May, the bund at the mouth of the canal was removed on the 10th of that month, but the crops sown at the time were soon withered by the hot winds. Owing to the frequent fluctuations of the river the inundation was fair only. The bunds at the mouths of branch canals gave way owing to the pressure of water caused by the closure of zamindári karias, and the canals began to flow before they were needed. The hill-floods did considerable damage to the banks of Dhamrao Canal, and flooded a large area of land in the Kakar Táluka. The banks of the Lohri Wah were also breached by this flood which extended as far as the west bank of the Western Nara. A breach in the Nagesha bund caused a large area of rice cultivation in the Mehar and Kakar Tálukas to be flooded.

Pinyari Canal.

The chief works in hand were:—The completion of improvements to the Laikpur Canal, construction of inspection bungalows at Dori, Jati and Mukhrang, diversion of Pinyari near the Saida Wah and drainage of Sujawal dhands. The canal commenced flowing on the 13th May and ceased flowing at the head on the 11th November. The inundation was not so favourable as last year in the Mirpur Bathoro Táluka, but was very satisfactory in the Sujawal Táluka, except at the tail of Ghari and Raj Wah. The full supply was never reached at the Gungro tail escape, and consequently some high lands on Hajia and Pinyari in Jati Táluka were left uncultivated, and the tail portion of the Gadap Canal also suffered. A few breaches occurred in the main canal at Sujawal, but they were closed before causing any damage. The inundation on the Laikpur Canal was very poor notwithstanding the improvements, full supply level being maintained for only 30 days.

Baghar Canal.

The excavation of a new head to this canal, which was in progress last working season, was completed, the total expenditure being only about half of the sanctioned estimate. This saving is due to the work having been carried out on a new and more advantageous alignment. An inspection chowki at Mirpur Sakro was completed, and one at Pirpatho was in course of construction. Water came in through the old head of this canal on the 14th April and on the 24th through the new. The canal ceased flowing on the 1st November. The new head was successful in the beginning of the flood season, but subsequently silted up owing to erosion. The canal worked well all the time. The crops were very satisfactory in the low lands and fair in the high. The branches also worked well, with the exception of the Jhor Wah. Owing to the late rise of the river seedlings suffered to a certain extent.

Shikárpur Canals.

The principal extensions and improvements were:—The construction of embankments along the Rajib Wah and Garang Wah, the latter of which was completed, the excavation of a new feeder to the Garang Wah, and an auxiliary feeder to the Dehar Wah, and alterations to chowkis at Sarhad and Mahesro. The outlay for the year was Rs. 10,248. The Garang, Rajib and Chiti Canals did not work quite satisfactorily owing to the continuous river erosion at their mouths. All the other canals worked well, with the exception of the

Sehar Wah, which partially failed owing to a deposit of silt in the Gidu dhand at its mouth. The floods were fairly good and have irrigated a large area for rabi. The cultivated area for the year under review will probably prove to be less than that of the previous year. Damage was done by locusts to the rabi crops in the Ubauro and Mirpur Tálukas.

Western Nara Canals.

The area of cultivation is expected to be somewhat less than that of last year. The supply of water was deficient owing to the unsteady river and to the erosion at the mouths of some canals which were silted up. The Munchur lake alone benefited by the early rise of the river, but in spite of this the level in the lake was lower than that of last year.

Karáchi Canals.

The chief works here were :—The construction of inspection bungalows at Lakha and Mirpur Bathoro, the diversion of the Chahagazo and the improvement of the Punjgazo Canal. The canals worked fairly satisfactorily, except for an insufficient supply at the beginning of the season. In the Mirpur Bathoro Táluka the canals did not work well, and the rice crops suffered to a certain extent ; bájri and other lift crops were prosperous.

Kashmore Bund.

During the season a new cross bund was constructed from mile 8 of the front to mile 7 of the back bund, and was continued as far as the old Tori loop, which was sand-cored and strengthened to its junction with the back bund. The cost was Rs. 52,146. A new line of fencing was made 50 feet from the rear toe of the bund for a length of 44 miles and 33 miles of new road were constructed. There were no leaks or breaches due to river, which was low. Heavy hill-floods caused twelve breaches in miles 45 to 48 ; these were not serious and were quickly closed. The Shori Nai came down in flood four times, but no serious damage was done by it. The compartments were filled as usual to wet the back bunds. The water in compartment No. 4 was used to supplement the Unhar Wah. The outlay on maintenance and repairs was Rs. 78,528 as against Rs. 73,036 of the previous year.

Shikárpur River Bunds.

Loop bunds were in course of construction between miles 12/6 and 16, and 29/4 and 32 of the Sukkur-Begari Bund which lengths were threatened with erosion. The construction of loops to the same bund between miles 22 and 25, and 7/4 and 14/3 begun last year was completed. The bund was breached at mile 1/1 owing to the sudden rise of the river, and was therefore opened up and reconstructed at this point. Other works were the completion of special repairs to the Sukkur-Begari bund continued from last year, and extensions and improvements to the same bund. The set of the river was on its right bank in the earlier part of the inundation, but changed over to the left later. Water was against the Kasimpur bunds in miles 1 to 7. The other bunds were not injured during the year.

Ghar Bunds.

During the year under report the loop behind the Mitho and Phulu bunds was completed at an outlay of Rs. 49,300. The flood water touched all the bunds at a level 2 feet higher than last year, cutting away several of the cross bunds constructed across the pits in miles 13 to 30/2. There were no leaks or breaches. The erosion of the river was slight and had no effect on any of the bunds.

Nara Bunds.

The special repairs to the Nara Bunds in Dhamrao Canal Sub-Division, construction of a New Mangli in front of mile 34/3 of Lashari bund, and filling up of a scour hole of the Lashari bund were completed. As there were many leaks in parts of the Nangeshah and Lashari bund line, it was decided to construct a new loop from mile 23/4 to 35. Rs. 5,673 was spent on this during the year. The river embankments were very severely tested, there being no fewer than 530 leaks and 8 breaches. One of the latter, at mile 26/5 of the Nangeshah bund, proved very serious. In spite of all efforts to close it, the gap in the bund soon became a furlong in length, and would have extended had not the ends been eventually protected with wood work. Another breach, which was only closed after much difficulty, occurred in the Abad bund at mile 16/5 ; it was 27 feet wide, and 6 feet of water was flowing through it at the time it was closed. The slopes of the bund in many places have suffered from excessive wave action.

Karáchi Bunds.

The chief works carried out during the year were :—The Tanghiani bund restoration, construction of a regulator on the new loop across the Ghar Marho Canal, raising and strengthening of the Mulchand-Shahbander bunds from mile 50/3 to 63/3 and the improvement of the front slopes of these bunds, construction of a regulator on the new loop across the Nasir Wah, and the construction of beldars' landhis and shelters. The expenditure for the year was Rs. 22,486. All the bunds were wetted by the river, and water stood against them for some time. There were two small breaches and a few leaks which were stopped in time. A portion of the Baghar Uchito bund was eaten away from mile 8/4 to 9/1, but the Rajana bund was quickly constructed before the erosion could do any damage.

Surveys—Begari Canals District.

During the year a cadastral survey of lands in Baluchistán settled on the Begari and Desert Canals was begun. The estimate amounts to Rs. 1,45,045, of which a portion will be contributed by His Highness the Khan of Khelat. The expenditure incurred during the year amounted to Rs. 28,486. In the revised estimate the area to be dealt with is 500 square miles. Of this 243 square miles have been completed in the past season. Fifty villages in all have been dealt with, and the village maps have, as far as possible, been made in accordance with tribal boundaries and of a convenient size for revenue purposes. A sum of Rs. 24,000 has been set aside in the survey estimate to defray the cost of earthen boundary marks, but no expenditure has been incurred under that head, as all demarcation has been undertaken and completed by the landholders. During the year the field work of the contour survey of the Desert, Unhar Wah and Begari Canals system, which has been in progress for four years, was practically

completed, the expenditure for the year being Rs. 6,019. An expenditure of Rs. 3,024 was incurred in making surveys and plotting field work for the proposed Begari Canal remodelling project, which will be put in hand as soon as the contour survey field work has been plotted.

The outlay for the contour survey of this district during the year under report amounted to Rs. 11,431. The whole field work was completed, and the plotting of the work is now in hand. Surveys—Ghar Canals District.

A contour survey of this district has been ordered with the view to making a thorough investigation of the extensive country, before steps are taken to improve the Western Nara Canal. Work to the extent of Rs. 2,919 was done during the year and was still in progress. It is hoped to complete the survey next field season. Surveys—Western Nara District.

7. *Indus Left Bank Division.*

The supply from the Indus was good and constant, the 12th mile gauge reading over 21 feet continuously from 7th June to 18th September, or only 10 days less than last year. The maximum depth available and admitted was 23·10 feet. There were no floods, with the exception of a small local one of no importance. Nara Supply Channel.

Works commenced last year and completed during the year under report were: Road bridge in 9th mile of the Mithráo, road bridge in 2nd mile, and regulating bridge in 7th mile of new Dosawah, bungalow at Kanhár and Signaller's room at Sindri, the total expenditure on which was Rs. 10,442. The expenditure on extensions and improvements was Rs. 9,905. The expenditure on clearance and repairs to the canal and its distributaries was Rs. 27,845, and the canal was maintained in good order. The kharif and rabi areas are expected to be about 12,000 and 8,000 acres in excess of the previous year. The canal was opened on the 15th May and worked well throughout the year. Mithráo Canal.

An increase of about 1,300 acres in kharif over last year is expected. The canal worked satisfactorily throughout the year. Heran Canal.

A decrease is expected in both kharif and rabi irrigation. The supply from the Dhoro Naro was not sufficient, but steps will be taken to improve it. Khipra Canal.

The kharif area is expected to be about 2,000 acres less, and the rabi 3,000 acres more than in the previous year. The canal worked well. Last year the canal was closed on 1st December at the request of the Revenue authorities. As in the case of the Umarkot branch it has been found that such early closing reduces water-logging, and improves the health of the people, while not causing any appreciable reduction in the irrigated area. This year it was kept open till 18th January at the request of the Revenue authorities. Thar Canal.

The main canal has been excavated, and the Bhaiti Bund extension is practically completed. The expenditure during the year was Rs. 90,158. Waste areas, which will be commanded, are being contour-surveyed in order that the Minors and water-courses may be located, and the area divided up into villages according to the Jámráo system. The initial survey of 26,222 acres north of the Railway line was taken in hand and completed. Hiral Canal.

The total expenditure of the year was Rs. 4,53,784, of which Rs. 3,17,851 were for "Works" only. The principal works were earthwork on Minors and distributaries, buildings, escapes with their regulators, plantations, masonry outlets and contour surveys. Most of the works carried out were in the southern district. Special attention was given during the year under report to the first 10 miles of the canal, where it runs through pure sand, the sides being protected, and the canal kept in its course by strong groynes. In some places where the banks had sunk they were raised to their proper height. The total expenditure, including Revenue and Works establishment, and charges for the maintenance of the telegraph line, was Rs. 1,12,216. The area irrigated during the year was approximately 137,000 acres in the kharif season and 86,000 in the rabi season, giving a total of 223,000 acres, an increase of about 60,000 acres over last year, and remissions are expected to be trivial. The gross Revenue accruing from the canal for the Revenue year will, it is expected, not be less than Rs. 6,55,000, and an increase of about one lákh of rupees is expected in the next year. The demarcation of new village boundaries was completed, and the interior survey of villages in the Mirpur Khás and Samaro Tálukas was commenced in the southern district. The re-survey of old village boundaries in the unsquared area was nearly completed in the northern district. The rabi season opened with a plentiful supply, but owing to scarcity of water in the Mithráo and in the Nára, the supply in the Jámráo was wholly cut off for two periods of a week each, in February, which saved the rabi crops in the Mithráo and Nára. To make up for this the Jámráo was kept open till the 31st March, instead of the 15th, which was the date fixed for closing it. Malarial fever was prevalent throughout the year, which must have affected the development of irrigation to some extent. Jámráo Canal.

The expenditure of the year was Rs. 2,74,733 ("Works" only) mainly on widening and improving the old "Dad-wah," excavating new branches, building seven road bridges on the main canal and four on the branches, four "Chowkies," one rest-house, an escape channel with head regulator, three head regulators, and one fall regulator, on the new branches, one regulating Dád Canal.

sluice in the 23rd mile of the main canal, and improving some of the old branches. Several of the masonry works are still in progress. The canal was maintained at a total cost of Rs. 45,114. The increase in cultivation was expected to be about 50,000 acres, but owing to the late completion of the earthwork and delay in giving out land, the increase will probably only be about 20,000 acres. The villages were settled, and also the alignment of water-courses in the waste areas, commanded by the system, which were broken up into squares. The excavation of water-courses was in progress, and was partly carried on by this Department and partly by the zamindárs to whom lands have been allotted. The Dhund which feeds the canal was silted to some extent at its mouth, but the silt was removed in time, and the canal with its branches worked fairly well. There was some erosion of the canal banks in a few places, and some cracks appeared in the head regulator, owing to settlement of a pier and abutment, but they are not serious. A large breach which occurred in the 52nd mile (Kháro Dhoro), owing to sufficient water not being utilized in the upper reaches, was closed with some difficulty.

Nasrat Canal.

The capital outlay of the year was Rs. 3,74,932 ("Works" only), of which Rs. 3,07,154 represents expenditure on earthwork, and the remainder on regulators, bridges and buildings. The head regulator, commenced last year, and the earthwork of the extension and branches were nearly completed. The widening of the old canal, which is estimated to cost about 3 lákhs of rupees, is to be taken in hand in November next and completed in May so as to admit the kharif supply for the season 1903-1904. The initial survey was taken in hand and completed, 197,972 acres having been divided into squares and demarcated.

Mehrabwah.

The extension of the Garkino branch, commenced last year, was completed at a total cost of Rs. 1,078. The canal was maintained in good order at a total expenditure, including work establishment, of Rs. 14,571. The canal with its branches worked more satisfactorily than it has done for several years.

Fuleli Canal.

An estimate amounting to Rs. 31,028 for a contour survey of the Fuleli Canals District, was sanctioned, and work, which is still in progress, was carried out in the Guni Táluka at an expenditure of Rs. 7,683. The cut from the new Nasirwah Diversion made last year, to feed the tail of Bagwah, was extended at a cost of Rs. 1,634 to irrigate land at the disused tail of the Shadiwah small, and proved of great use to rabi cultivation. The head regulator of the Mirwah Talhar was raised to increase the headway for boats. The expenditure during the year was Rs. 1,403. The Local Fund bridge at Matli, was raised at a total cost of Rs. 2,393, to increase headway for boats and steam-launches. A portion of the Sanhi Guni was diverted at a cost of Rs. 1,368. Clearance and repairs, including "Work" and Navigation establishment, cost Rs. 1,63,345. A slight decrease is expected in the kharif area, as the last was a record and an exceptionally good year, but there will probably be an increase in rabi. The canal and its branches worked well throughout the year, the loss from the deficiency in the supply in the early part of the season being minimised by the use of the Nareja and Alipur regulators on the Old Fuleli and Fuleli, and by keeping up a system of rotation. The new escape, which has turned the Fuleli into a perennial canal, on which boats and steam-launches ply throughout the year, saved the low-lying districts at the tail from breaches, and consequent water-logging, and has proved an incalculable blessing to the district. It has also enabled zamindárs to irrigate rabi and spring crops all along the Fuleli bank during the cold season, and on the escape itself crops are grown.

Alibahar Kacheri.

The area of the cultivation is expected to be up to the average. The canal worked fairly well throughout the season, some small breaches being closed without doing damage.

Great Marak.

The total expenditure on clearance and ordinary repairs was Rs. 19,226, and the canal was maintained in good order. The area of cultivation is expected to be above the average. The supply to this canal was good throughout the season, and there were no breaches of any consequence.

Sarfrazwah.

Clearance and repairs were carried out at an expenditure of Rs. 10,213. The area of cultivation is expected to be up to the average. The supply to this canal and its branches was good, and no breaches occurred.

Works for which only Revenue Accounts are kept.

The principal canals are the Nasrat, Naolakhi, Dambro, Ren, Gharo Mahmuda and Nasir, the smaller canals being grouped together as "Other Canals". All the canals received a fair supply and worked well, and it is anticipated that the area of cultivation will be above the average. At the tail of the Renwah a large breach occurred and 5 "Dehs" were submerged. Eventually the flood water flowed off into neighbouring dhoros.

Bunds.

Several small works of extensions and improvements were carried out at a total cost of Rs. 3,298. The total expenditure on clearance and repairs, including work establishment, was Rs. 1,38,283.

The river bunds in the neighbourhood of Hyderabad, including the Naolakhi-Bhorti and the Hála bunds, were maintained at a total cost of Rs. 6,876. The erosion in front of the Naolakhi-Bhorti bund still continues, and a loop may have to be constructed next season. A portion of the Hájipur bund was raised and strengthened. As the river was comparatively low, no bunds were endangered on account of the height of water. The loop near the village of Hájipur, in the second mile, commenced last year, was completed during the year under report at a total cost of Rs. 22,507.

8.—*Indus River Commission.*

Surveys.

This year was the first complete year of the Indus River Commission. Work was carried on throughout the year under Mr. E. F. Dawson, the Engineer and Secretary, who brought the operations of the Commission into working order.

No hydrographic surveys were made during the year, but bank and current surveys were carried out in respect of Gudu Dhund, Kashmor Bund, Sukkur-Begari Bund, Kasimpur Bund, Khairpur State River banks, Western Nara mouth, Western Nara Bunds, Naulakhi-Bhorti Bund, Bhiman Bund, Belo-Munarki Bund, Hyderi and Uchito mouths. The total length surveyed was about 330 miles, and the total expenditure under this head was Rs. 24,322 as compared with the previous year's expenditure of Rs. 9,102.

Discharge of the Indus.

The discharge of the river was measured, and silt observations were made regularly at Sukkur from March to September 1901, and at Kotri from August to October 1901, and from January to March 1902, the velocities being ascertained by Haskell Current Meters. The breathing of the river at the Bukkur and Din Belo gauges was recorded weekly from June to September. The maximum discharge measured was 699,184 cubic feet per second at Sukkur on the 16th August 1901, the mean velocity being 9·6 feet per second, the Bukkur gauge reading 16·3 feet. As the maximum gauge reading of the season was 16·4, this may be taken as the maximum discharge of the year. The maximum velocity recorded during the year was 12·4 feet per second, or 8½ miles per hour at 10·8 feet below the surface on the 12th August, when the Bukkur gauge read 15·0 feet. An abnormal flood occurred in May, the discharge recorded being 343,149 cusecs on the 10th, the Bukkur gauge reading 11·2 feet. The usual Bukkur gauge reading about this date is 6 feet, and discharge probably about 100,000. The minimum discharge measured was 56,517 cusecs on the 25th March at Sukkur, when the Bukkur gauge read 3·8 feet, but as the same gauge read 0·65 feet on 27th March, this does not represent the minimum discharge of the year. Mr. Sibold, a former Executive Engineer, calculated or estimated the average maximum discharge at 580,000 cusecs, which agrees fairly well with that recorded this year of 699,184, as the Bukkur gauge reading of 16·3 when the latter discharge was taken, is above the average maximum reading.

Silt experiments.

The minimum quantity of silt in suspension, measured at Sukkur, was 350 grains per cubic foot of water, at the surface, on 24th September, and the maximum quantity, which occurred during the abnormal flood, was 3,570 grains per cubic foot, on 11th May, and was found at 11 feet below the surface.

Extensions and Improvements.

A new cut to the Barahgazo Canal estimated to cost Rs. 1,156 and a new head to the Sian Hyderi estimated to cost Rs. 1,788, were in progress during the year.

Special Repairs.

Two loops in the Sukkur-Begari Bund, estimated to cost Rs. 1,44,857, one in the Western Nara Bunds, estimated to cost Rs. 96,804, and one in the Mulchand Shahbandur Bund, estimated to cost Rs. 3,936, were in progress during the year. Besides these several other loops were proposed, but after consideration of the Commission they were postponed.

Maintenance and Repairs.

The expenditure under this head on the gauge establishments at Bukkur, Kotri and Jerruck was Rs. 1,157, of which Rs. 910 was expended at Sukkur, which is the reporting station for all gauges. The steamer "Futteh Mubarak" was hired for about five months at a cost of Rs. 3,784. Several other small works directly under the control of the Commission were carried out with a total expenditure of Rs. 4,246.

Snagging and Conservancy.

The usual 'snagging' tour was carried on from 10th November to 9th December by Mr. Bayliss, Deputy Conservator and Registrar, River Indus, in the S.S "Futteh Mubarak," which was hired for the purpose. The time was too short to allow of all the work required to be done, but when the Commission has its own steamers work will be more thoroughly done. The Conservancy work was carried on in about 300 miles of the river from Ketti-Bandar, at its mouth upwards, the wreck of a large sea-going boat being removed from the Uchito, one of the channels at the mouth of the Indus and altogether 45 snags and collections of brushwood were removed from the River bed.

General Remarks.

Rs. 32,273 were expended during the year on the new steamer and launch, which are now being built in the Bombay Dockyard, and which are expected to be ready for use during the next touring season.

The first complete year's working of the Indus River Commission has shown its usefulness. During the year, in addition to the loop bunds actually taken in hand, proposals for the immediate construction of several others were made by Executive Engineers, but after consultation with the Engineer of the Commission and reference to his large scale plans of the sites, which as a rule show the direction of currents and the river bank in different years, it was decided that they should be postponed. It may be that some of these loops need never be constructed, owing to changes in the river's course and of those which will eventually have to be made, either in the next working season, or in some future season, it is probable that hardly one of them will be made on the site originally chosen by the Executive Engineer, as more information will have been obtained regarding changes in the direction of the currents and consequently in the erosion, which, as long as it continues, is measured

weekly, or oftener in some cases, at places where it is strong, and plotted on the plans. After the Abkalani season, when the river has fallen, fresh surveys will be made and plotted on this season's plans at all the most urgent places, which will assist in settling where new loops are required.

10. Railways.

Length of open lines.

The Petlád-Cambay (19·07 miles) Branch of the B. B. and C. I. Railway was opened to traffic during the year. The total length of Railway open to traffic under the administrative control of the Government of Bombay was 7,716·79 miles.

Lines under construction and under survey.

There were 262·20 miles under construction and the survey of 1,473·16 miles was in progress.

Chief events.

The dispute between the G. I. P., the Southern Mahratta and the West of India Portuguese Railways as to the routing of traffic between Bombay and Southern Mahratta Railway stations was settled by a territorial division of the traffic. The arrangements between the B. B. and C. I. and the Rájputána-Málwa Railways were revised and a new contract entered into to extend to 31st December 1905.

The Girna Bridge on the Amalner-Jalgaon Railway was opened on 16th May. The doubling of the B. B. and C. I. line up to Baroda was completed on 21st April 1902.

The most serious accident of the year was a collision on the Indian Midland Railway between a Down passenger train and loaded goods wagons in which two passengers were injured. A serious fire at the Parel Carriage Workshops of the G. I. P. destroyed 27 vehicles.

Flood damages.

During the monsoon traffic was stopped by landslips on the G. I. P. for three days between Ghoti and Padali on the Thull Ghat and for one day on the Bhore Ghat, and on the Indian Midland Railway for three days at Mundra. Lines were breached and traffic stopped on the Southern Mahratta Railway between Mandya and Yeligur for one day and between Bedadi and Closepet for one day.

Capital Transactions.

G. I. P. Railway, Indian Midland Railway and Bársi Light Railway.

Railways.	Total Capital Outlay to end of December 1901, including suspense.	Mean mileage worked.	Cost per mile.
Broad Gauge.	Rs.		Rs.
G. I. P. Railway	30,64,49,134	1,545·85	1,97,930
Khámgaon State Railway	5,22,149	7·89	66,179
Amráoti State Railway	4,51,915	5·72	79,006
Indian Midland Railway	10,58,27,081	796·26	1 32,905
Bhopál State Railway	75,46,891	57·89	1,31,502
Bhopál-Ujjain Railway	77,61,569	113·27	68,523
Bina-Baran Railway	1,00,43,286	145·59	68,983
Narrow Gauge.			
Gwálior Light Railway	31,00,762	126·14	24,582
Bársi Light Railway	13,18,312	21·59	61,061

B. B. & C. I. & R. M. Railway Systems.

Railways.	Total Capital Outlay.	Mean milege worked.	Cost per mile.
Broad Gauge.	Rs.		Rs.
B. B. & C. I. Railway	12,03,69,427*	460·90	2,61,161
Nágda-Ujjain Railway	22,31,982	34·32	65,034
Tápti-Valley Railway	1,29,18,730	155·48	83,089
Gáekwár's A'nand-Tárápur Railway	11,86,381	17·70	55,181
Godhra-Rutlam-Nágda Railway	1,77,80,596	141·14	1,25,978
Tárápur-Cambay Railway	7,49,676	5·83	68,651
Metre Gauge.			
Rájputána-Málwa Railway...	13,65,78,028	1643·19	83,118
Gáekwár's Mehsána Railway	33,48,911	92·63	36,154
Pálanpur-Deesa Railway	4,18,264	17·28	24,205
Ahmedabad-Parántij Railway	19,49,355	54·70	35,637
Narrow Gauge.			
Gáekwár's Dabhoi Railway	21,14,302	78·80	26,831
Rájpipla State Railway	13,06,822	37·37	34,970

* Includes State outlay of Rs. 8,08,405 on the Patri Branch.

Southern Mahratta Railway.

Railways.	Total Capital Outlay.	Mean mileage worked.	Cost per mile.
Metre Gauge.	Rs.		Rs.
Southern Mahratta Railway...	9,72,21,072	1,042·04	93,298
Mysore State Railway	1,56,62,469	296·36	52,849
Guntákal-Mysore Frontier Railway	59,02,583	119·50	49,394
Nanjangud Railway	6,56,462	15·66	41,919
Hindupur Railway	24,25,168	51·35	47,228
Birur-Shimoga Railway	22,94,078	37·92	60,497
Kolhápur State Railway	23,24,807	29·27	79,426

B.-G.-J.-P. Railway.

Railway.	Total Capital Outlay.	Mean mileage worked.	Cost per mile.
Metre Gauge.	Rs.		Rs.
Bhávnagar-Gondal-Junágad-Porbandar Railway (including Jetalsar-Rajkot, Jámnagar and Dhrángadhra Railways)	2,25,66,773	455·18	50,562

Morvi Railway.

Railway.	Total Capital Outlay.	Mean mileage worked.	Cost per mile.
Narrow Gauge.	Rs.		Rs.
Morvi Railway	24,43,968	94·36	25,900·47

REVENUE TRANSACTIONS.

G. I. P. Railway System—I. M. Railway System—Bársi Light Railway.

Railways.	Gross earnings half-year ending June and December 1901.	Earnings per mile per week.	Working expenses half-years ending June and December 1901.	Percentage of Expenses to Earnings.
Broad Gauge.	Rs.	Rs.	Rs.	
G. I. P. Railway	4,16,57,453	518·23	2,00,09,302	48·03
Khámgaon State Railway	49,378	120·35	26,041	52·74
Amráoti State Railway	1,08,578	365·04	58,341	53·73
Indian Midland Railway	82,43,068	199·08	39,92,481	48·48
Bhopál State Railway	8,78,013	294·21	4,44,940	50·68
Bhopal-Ujjain Railway	5,45,956	92·69	2,83,912	52·00
Bina-Baran Railway	2,52,716	33·38	1,29,746	51·34
Narow Gauge.				
Gwalior Light Railway	82,227	12·54	82,747	100·63
Bársi Light Railway...	1,68,238	149·85	88,650	52·69

B. B. & C. I. and R. M. Railway System.

Railways.	Gross Earnings.	Earnings per mile per week.	Working Expenses.	Proportion of Expenses to Earnings.
Broad Gauge.	Rs.	Rs.	Rs.	
B. B. & C. I. Railway	1,59,38,796	665	70,16,712	44·02
Nágda-Ujjain Railway	1,12,367	63	45,159	40·19
Tapti-Valley Railway	6,00,553	74	2,58,310	43·01
Gáikwar's Anand-Tárápur Railway ...	93,232	101	41,461	44·47
Tárápur-Cambay Railway	12,011	40	6,062	50·47
Metre Gauge.				
R. M. Railway, including Godhra-Rutlam-Nágda Railway	2,78,62,296	300	1,28,15,451	45·99
Gáikwar's Mehsána Railway	3,92,224	81	1,77,116	45·16
Pálanpur-Deesa Railway	36,804	41	16,882	45·87
Ahmedabad-Parántij Railway	1,77,438	62	78,073	44·00
Narrow Gauge.				
Gáikwar's Dabhoi Railway	2,53,93 7	62	1,80,509	71·08
Rájpipla State Railway	47,183	25	36,695	77·77

S. M. Railway.

Railways.	Gross Earnings.	Earnings per mile per week.	Working Expenses.	Proportion of Expenses to Earnings.
Metre Gauge.	Rs.	Rs.	Rs.	
Southern Mahratta Railway	58,29,471	107·27	40,98,337	70·30
Mysore State Railway	14,33,240	93·00	10,25,449	71·55
Kolhápur State Railway	1,14,114	74·97	78,364	68·67
Nanjangad Railway	28,302	34·76	20,439	72·22
Hindupur Railway	1,97,798	74·08	1,37,074	69·30
Guntakal Mysore Frontier Railway ...	4,47,313	73·98	3,10,653	69·45
Birur Shimoga Railway	62,058	31·47	45,065	72·62

B.-G.-J.-P. Railway.

Railways.	Gross Earnings.	Earnings per mile per week.	Working Expenses.	Proportion of Expenses to Earnings.
Metre Gauge.	Rs.	Rs.	Rs.	
Bhávnagar-Gondal-Junágad-Porbandar Railway (including Jetalsar-Rájkot, Jámnagar and Dhrángadhra Railways)	18,96,276	80·12	10,85,770	57·26

Morvi Railway.

Railway.	Gross Earnings.	Earnings per mile per week.	Working Expenses.	Proportion of Expenses to Earnings.
Narrow Gauge	Rs.		Rs.	
Morvi Railway	3,58,663	73·10	2,33,129	65·00

11. Tramways.

Tramway services have been established in Bombay, Karáchi and Násik. The Bombay Tramway Company serves a district included within the five termini of Colába, Girgaum, Tardeo, Parel and Mazagon with a mileage of 17 miles and carried 21,751,791 passengers in 1901. The Karáchi Tramways have a mileage of seven miles and carried 2,205,207 persons in 1901. The Násik line connects Násik City with the Railway Station at Násik Road, a distance of 5 miles. 135,362 persons were carried by it.

CHAPTER V.—FINANCIAL REVIEW.

Financial Review, 1901-1902.

I.—General Remarks.

In this review the receipts and expenditure of the Civil, Public Works Telegraph and Postal Departments in the Bombay Presidency are compared with those of the preceding year, while under Debt and Remittance accounts brief explanations of the more important credits and debits are given. The figures for 1900-01 do not entirely agree with those shown in the Financial Review for that year owing to certain journal entries having been made altering the accounts for that year after the submission of the review. The figures for 1901-02 are similarly subject to alteration before the accounts are finally closed.

The difference in the actuals of the two years is the net result of increases and decreases under the various major heads, and the more important of these are considered below.

II.—Imperial Gross Revenue.

I.—Land Revenue. The increase of Rs. 3,48,581 was due to large collections of arrears of previous years and to an improvement in the agricultural conditions in some districts of the Presidency.

II.—Opium. The decrease of Rs. 43,90,707 was due to diminished exports of Málwa opium.

III.—Salt. The decrease (Rs. 75,693) was due to an abnormal demand in 1900-01 for Goa salt and to the recovery in that year of instalments of arrears on account of the lease of Government Salt Works at Mátunga.

IV.—Stamps. The increase of Rs. 96,534 was chiefly under "Sale of Court-fee stamps" due to a special receipt on account of probate duty.

V.—Excise. The increase of Rs. 3,02,775 was chiefly due to larger realisation of still-head duty, of duty on fermented liquors and of license fees. The introduction of the Hemp Drugs Act from 1st August 1901 also contributed to a large extent towards the better results.

VII.—Customs. The large increase of Rs. 49,56,004 under this head was due to the revival of trade and to large imports of silver from the United Kingdom.

VIII.—Assessed Taxes. The improvement of Rs. 27,710 was mainly due to the expansion in the mill trade and a more careful system of assessment.

IX.—Forests. The falling off of Rs. 2,90,901 was due to the special receipts in 1900-01 from famine grass operations.

XI.—Tributes. The increase of Rs. 87,389 was mainly due to the recovery of fees on succession from Miraj (Junior) and Akalkot States.

XII.—Interest. The increase of Rs. 86,195 was due to the recovery of accumulated interest on loans to certain Native State and also partly due to a special receipt of interest on advances made to the Bank of Bombay.

XV.—Mint. The falling off of Rs. 2,76,91,448 was chiefly under "gain on coinage operations" and was due to the diminution in the amount of Government silver coined for the Native States.

XXV.—Miscellaneous. The decrease of Rs. 29,503 was mainly under "Premium on bills" owing to a slack demand for local bills during the year.

III.—Imperial Civil Expenditure.

1.—Refunds. The excess of Rs. 1,44,120 was mainly under "customs refunds" due to the refunds of countervailing duties on sugar.

7.—Excise. The excess of Rs. 26,190 was due to the entertainment of additional establishments in connection with the working of the Hemp Drugs Act.

11.—Forest. The decrease of Rs. 3,45,763 was due to the fact that the actuals for 1900-01 included charges on account of famine grass operations.

17.—Mint. The decrease of Rs. 2,81,96,159 was nominal as the figures for 1900-01 included "net gain on coinage transferred to the Gold Reserve Fund" which did not represent actual expenditure.

25.—Political. The increase of Rs. 50,837 was due to special charges on account of "Darbár Presents" made at Aden.

26.—Scientific, &c. The excess of Rs. 53,387 was mainly due to charges in connection with "census".

30.—Stationery, &c. The increase of Rs. 62,462 was due to large purchases of stationery for the central stores.

32.—Miscellaneous. The decrease of Rs. 1,05,232 was due to unusually heavy charges for remittances of treasure in 1900-01.

33.—Famine Relief. The decrease of Rs. 61,73,698 was due to an improvement in the season conditions.

IV.—Provincial Gross Revenue.

I.—Land Revenue. The increase of Rs. 61,24,956 was due chiefly to the large contribution from Imperial Revenues in aid of Provincial Balance.

IV.—Stamps. The causes which led to this increase of Rs. 2,89,600 have been explained above.

V.—Excise. The increase of Rs. 1,00,924 was due to causes mentioned above.

VIII.—Assessed Taxes. The causes for the increase of Rs. 42,709 have been explained above.

IX.—Forests. The falling off of Rs. 2,90,901 was due to causes already mentioned.

XVI.—B. Jails. The increase of Rs. 49,104 was mainly under "Hire of convicts" due chiefly to the Deccan gang having been employed on remunerative work during the year.

XVII.—Police. The falling off of Rs. 53,521 was due to smaller receipts from Cantonment Funds and to increased charges on account of additional establishment.

V.—Provincial Civil Expenditure.

2.—Assignments, &c. The decrease of Rs. 22,221 was due to lapses of Ináms and postponement of cash payments.

3.—Land Revenue. The savings (Rs. 88,068) were chiefly due to diminution in indirect administration charges on account of famine and to the abolition of the Survey parties from April 1st. On the other hand there were additional charges on account of waste land demarcation in Sind and of increased allowances to village accountants.

11.—Forests. The causes of the decrease of Rs. 3,45,766 have been explained above.

13.—Interest, &c. The excess of Rs. 61,560 was due to an increase in the interest bearing balances of the Provincial Advance and Loan Account owing to additional grants sanctioned by the Government of India for advances to cultivators.

19A.—Law and Justice. The excess of Rs. 43,802 was chiefly due to a large number of officers having been on duty and to large payments having been made to officers of other provinces owing to the introduction of the new leave rules.

19 B.—Jails. The savings of Rs. 2,02,391 were due to the absence of abnormal charges included in the actuals of 1900-01.

20.—Police. The decrease of Rs. 1,03,779 was due to the reduction of charges in connection with famine operations.

22.—Education. The increase of Rs. 1,21,968 was partly due (*a*) to privilege leave allowances and the payment to officers of other provinces and (*b*) to a special building grant having been placed at the disposal of the Department.

24.—Medical. The large saving of Rs. 12,34,523 was mainly under "grants for medical purposes," due partly to curtailment of expenditure and partly to adjustments on account of expenditure incurred in previous years and recoverable from Local Bodies.

29.—Superannuation, &c. The increase of Rs. 62,896 under this head was due to the ordinary normal increase in pensions.

32.—Miscellaneous. The increase of Rs. 14,60,964 was due to remissions of takávi advances.

Contribution to Local Funds. The decrease of Rs. 54,966 was due to the fact that the actuals for 1900-01 included large contributions to several Local Boards.

VI.—Debt and Remittance Account.

The receipts and out-goings under these heads amounted to Rs. 71,36,48,989 and Rs. 78,84,16,836, respectively.

Deposit of Service Funds. The transactions recorded under this head are in connection with the Bombay Uncovenanted Service Family Pension Fund.

The receipts, which include the interest allowed by Government on the balance of the fund, amounted to Rs. 2,06,727 and the out-goings to Rs. 1,14,666.

Unrefunded Debt.

Savings Bank Deposits. The transactions under this head are on account of the Forest, Police and Financial Officers' Provident Fund and the Life Assurance Branch of the Bombay Uncovenanted Service Family Pension Fund.

The receipts amounted to Rs. 1,46,113 and the out-goings to Rs. 73,214.

Deposits and Advances.

The Excluded Local Funds are of the nature of Banking accounts. A detailed account will be found under "Local Funds". Excluded Local Funds.

Imperial Advances, &c.

The excess in out-goings Rs. (20,25,990) over receipts (Rs. 2,54,964) was due to large advances to Native States on account of famine in Gujarát and Káthiáwár.

Provincial Advances, &c.

The excess in out-goings (Rs. 69,91,141) over receipts (Rs. 37,16,088) was due to the loans sanctioned to several mofussil municipalities for plague expenditure and to grants for takávi advances owing to famine.

Remittances.

The high actuals under "Foreign" (receipts Rs. 5,45,32,298, out-goings Rs. 3,88,20,100) and other remittances (receipts Rs. 19,59,07,478, out-goings Rs. 19,60,23,664) were due to unusually large mint remittances and remittances between treasuries. Under "Post Office" the transactions were large owing to heavy money order transactions and premia for life assurance. The increase in the net out-goings (Rs. 31,87,167) under "Marine" was due chiefly to charges in connection with transports to China and Jubaland. The increase in the receipts under "Public Works" was chiefly under Railway Branches due to increased earnings of the Great Indian Peninsula and North-Western Railways, while the decrease in out-goings was under "Ordinary Branches" due to a decrease in the Famine Relief charges.

2. Mint.

The value of gold bullion and coin tendered by the public in exchange for rupees fell from Rs. 4,12,28,213 to Rs. 2,12,95,525. The effect of the orders issued in June 1901 for the payment of certificates at thirty, instead of sixty days' sight was the immediate resumption of tenders of gold bullion after a complete cessation for several months. Gold Bullion.

Uncurrent British Indian silver coin of the value of Rs. 44,80,542 was received for re-coinage during the year, and East India Company's coins known as Arcot rupees of the value of Rs. 16,831 were also remitted to the Mint. The re-coinage into British Indian Government rupees of the silver currency of the Native States of Kotah, Jhálávád and Cambay was carried out under arrangements similar to those previously adopted in the case of other Native States. The value of the remittances of Kotah, Jhálávád and Cambay coins received for conversion was Rs. 29,84,318, Rs. 8,70,715 (inclusive of Rs. 30,898 Bundi coins from Jhálávád), and Rs. 14,19,977, respectively. The value of silver bullion tendered by the Exchange Banks for coinage into British Dollars and brought to account was Rs. 6,41,09,530, or more by Rs. 4,39,57,126 than in the preceding twelve months. Silver Bullion.

33,546,869 rupees and one-eighth rupees of the value of Rs. 2,13,235 were struck during the year for the Government of India and for the three Native States previously referred to. The coinage of British Dollars on behalf of tenderers of silver bullion amounted to 25,684,971 pieces against 9,106,619 in 1900-1901. Silver Coinage.

The revenues from all sources was Rs. 51,33,184 against Rs. 3,27,79,064. The total expenditure, including *pro formâ* charges to the amount of Rs. 3,57,792, was Rs. 9,95,289, or less by Rs. 2,85,436 as compared with the preceding year. Revenue and Expenditure.

3. Currency.

PRESIDENCY CIRCLE.

The net circulation of currency notes fell in value from 712 lákhs to 709. The decrease is due to a falling off of 26 lákhs in the circulation of notes of Rs. 500 and over. The monthly variations were considerable: but generally speaking the circulation of the lower value notes increased after the monsoon, while the abnormal demand in the previous year for notes of high denominations disappeared with the return to normal agricultural conditions. There was an increase of 1,083 and 2,580, respectively, in the daily average of notes received and issued. Encashments of notes of all foreign Circles, excepting those of Karáchi and Rangoon, increased by Rs. 71,25,360 to Rs. 2,68,45,540, the increase being most marked in the notes of the Madras and Allahabad Circles. Circulation of Home and Foreign Notes.

The number of defaced coins withdrawn from circulation was 2,966 as compared with 6,303 withdrawn in 1900-1901. Coins withdrawn.

Issues of small silver coin increased by Rs. 3,96,136 to Rs. 13,15,542. On the other hand receipts decreased by Rs. 24,05,434 from the abnormal sum of Rs. 36,36,380 in 1900-1901. Small Silver Coins.

The receipts of sovereigns and half sovereigns amounted to Rs. 1,92,98,985, of which Rs. 1,42,80,000 were received direct from importers of gold. The issues were Rs. 2,30,63,715, including 141·52 lákhs remitted to England. The net issues of sovereigns and half sovereigns for general circulation amounted to Rs. 26,17,725. Gold Coins.

Gold Bullion. Gold bullion received from the public amounted to Rs. 16,08,169 and the issues to Rs. 8,47,921 which was remitted to England.

Silver Bullion. Silver bullion was purchased in England to the value of Rs. 4,93,674 and held as security for notes. The value of silver coined and remitted to Calcutta was Rs. 1,74,76,055.

Permanent Agencies. The only permanent Currency Agency at Nágpur issued notes to the value of Rs. 9,47,910 and received notes to the value of Rs. 8,69,910. At the close of the year there were eleven Temporary Agencies. temporary Agencies against 14 at the beginning. The opening and closing balances were Rs. 43,64,500 and Rs. 17,40,000, respectively.

Lost or Mutilated Notes. Claims to 290 lost or mutilated notes aggregating Rs. 18,305 were admitted as against 252 of a value of Rs. 20,365 in 1900-1901. Ninety-five half or mutilated notes of a value of Rs. 1,580 were credited to Government. Payments were made on account of one note of Rs. 50, 3 notes of Rs. 100 and 34 notes of Rs. 1,000—all of which were alleged to have been lost or destroyed.

Forged Notes. There were discovered 6 forged notes for Rs. 5, 2 forged notes for Rs. 10, one for Rs. 100, and one for Rs. 1,000. In the latter case the forger was discovered, tried and convicted. Four of the six 5-rupee notes belonged to a series, the forgers of which have already been convicted.

KARA'CHI CIRCLE.

Circulation. The value of notes in circulation increased from Rs. 99,19,245 to Rs. 1,01,14,660.

Foreign Notes. There was an increase of Rs. 86,90,920 in the value of Foreign Circle Notes encashed, chiefly of the Bombay, Calcutta and Lahore Circles.

Coins withdrawn. 160 rupees were withdrawn from circulation as shroff-marked or defaced.

Small Silver Coins. The receipts of small silver coin increased from Rs. 2,948 to Rs. 6,464, the issues from Rs. 2,08,032 to Rs. 2,14,752.

Lost or Mutilate Notes. Claims to 24 notes valued at Rs. 930 were admitted during the year. Twenty-one mutilated notes of a face value of Rs. 430 were credited to Government.

Remittance. No remittance of gold was received or sent. Rs. 62,30,000 were received from Bombay and Ajmer and Rs. 3,71,800 in silver coin were remitted to the Sind and Frontier Treasuries.

4. Land Revenue.

The amount including arrears, collected during the year 1901-1902 was Rs. 4,87,74,894. The total demand for the year was Rs. 3,90,54,494. In the preceding year the sum realized was Rs. 3,44,98,766 out of Rs. 4,64,45,716. The increase of Rs. 1,42,76,128 was contributed by almost every district and was due to the more favourable season.

5. Irrigation Revenue.

The revenue credited to this head falls under two categories, *viz.*, (*i*) the direct receipts of the Irrigation Department and (*ii*) the irrigation share of the land revenue assessed with reference to the supply of water from canals, tanks, dams, and other sources created or maintained by the Public Works Department. The works are also divided into three classes, the first includes entirely new works and works restored or extensively improved for which Capital and Revenue Accounts are kept; the second includes old works, which are maintained by the department and for which only Revenue Accounts are kept; and the third includes Agricultural Works for which neither Capital nor Revenue Accounts are kept. The direct receipts on account of Works for which Capital and Revenue Accounts are kept were as follows:—

	Rs.
Imperial.	
(1) Productive Public Works—	
(*a*) Sind	1,29,422
(*b*) Dakhan and Gujarát	3,80,851
(2) Protective Public Works—	
(*a*) Dakhan and Gujarát	2,52,089
(3) Minor Irrigation Works—	
(*a*) Sind	70,142
(*b*) Dakhan and Gujarát	61,977
Total, Imperial ...	8,94,481
Provincial.	
Minor Works and Navigation—	
(*a*) Dakhan and Gujarát	38,990
Grand Total ...	9,33,471

The corresponding receipts for 1900-1901 were Rs. 7,07,844. The irrigation share of land revenue on account of works for which Capital and Revenue Accounts are kept was as follows:—

	Rs.
(1) Productive Public Works—	
(*a*) Sind	16,92,854
(*b*) Dakhan and Gujarát	7,329
(2) Minor Irrigation Works—	
(*a*) Sind	12,18,714
(*b*) Dakhan and Gujarát	7,083
Total ...	29,25,980

The following table shows the financial position at the close of the year of irrigation work of all classes for which Capital and Revenue Accounts are kept:—

	Capital outlay in the year.	Capital outlay up to the end of the year.	Working expenses during the year.	Net Revenue during the year, Direct and Indirect.
Imperial.	Rs.	Rs.	Rs.	Rs.
Productive Works	22,47,415	3,32,37,861	7,32,638	14,77,818
Protective Works	2,14,677	90,94,439	69,695	1,82,394
Minor works and Navigation ...	73,120	1,07,71,831	5,47,780	8,10,136
Provincial.				
Minor Works and Navigation...	9,829	9,31,866	8,161	30,829
Total ...	25,45,041	5,40,35,997	13,58,274	25,01,177

The revenue and expenditure on account of Works for which only Revenue Accounts are kept are as follows:—

		Works in Sind.	Works in the Dakhan and Gujarát.	Total.
		Rs.	Rs.	Rs.
Gross Revenue ...	Direct	63,527	4,776	68,303
	Indirect	20,45,500	5,21,851	25,66,851
	Total ...	21,08,527	5,26,627	26,35,154
Working Expenses		8,45,893	2,67,793	11,13,686
Net Revenue ...		12,62,634	2,58,834	15,21,468

The revenue and expenditure in respect of the Works for which neither Capital nor Revenue Accounts are kept were as follows:—

		Works in Sind.	Works in the Dakhan and Gujarát.	Total.
		Rs.	Rs.	Rs.
Gross Revenue ...	Direct	2,333	3,752	6,085
	Indirect	6,99,121	.....	6,99,121
	Total ...	7,01,454	3,752	7,05,206
Working expenses		5,92,293	1,80,263	7,72,556
Net Revenue ...		1,09,161	—1,76,511	—67,350

6. Public Works Revenue.

The Public Works Revenue falls under two heads, Imperial Military and Provincial Civil. The revenue under the former head, derived mainly from miscellaneous sources, decreased from Rs. 9,129 to Rs. 9,013. The Provincial Civil Revenue, consisting chiefly of tolls on roads and rents of buildings, fell from Rs. 6,32,530 to Rs. 6,15,278, the receipts from the former showing a decrease of Rs. 24,983.

7. Customs.

Sea Customs.

Port of Bombay.

Imperial Receipts. The net Imperial receipts from import duties increased by Rs. 29,22,056 to Rs. 1,63,67,098, the advance being most marked in the case of cotton goods (6·7 lákhs), sugar (4·31 lákhs) and metals (13·85 lákhs). The export duty on rice and rice-flour realised Rs. 2,68,977 against Rs. 2,89,112 in 1900-1901. Miscellaneous receipts totalled Rs. 1,05,173.

Provincial Receipts. These declined from Rs. 80,566 to Rs. 70,685 mainly in consequence of a falling off in transhipment fees.

Drawbacks and Refunds. Drawbacks granted amounted to Rs. 2,46,030, a decrease of Rs. 84,408 on the figures for the previous year. The largest increase was on account of cotton goods (Rs. 28,956), while the largest decrease was on account of silver bullion and coin (Rs. 67,669). Refunds of import duty amounted to Rs. 80,365.

Expenditure. The expenditure of the Department rose from Rs. 6,05,425 to Rs. 6,23,721.

Bonding Transactions. The total net value of and duty on goods bonded increased by Rs. 1,02,112 and Rs. 76,856 respectively. The quantity of kerosine oil in bond increased by 716,801 gallons The amount of duty recovered on goods declared for home consumption increased by Rs. 1,38,022 to Rs. 7,54,310.

Customs Offences. The total number of cases in which penalties were awarded by departmental officers was 1,070 and the fines inflicted amounted to Rs. 15,779. Of this number 374 were under the Merchandise Marks Act and 696 under the Sea Customs Act.

Port of Karáchi.

The Imperial Customs Receipts, exclusive of Refunds and Drawbacks, improved materially from Rs. 36,24,983 to Rs. 51,29,248. The main increase is under import duty which, owing principally to the shipment of large quantities of low-priced beet sugar from Europe, showed an excess of Rs. 15,58,953 over last year's total. Export duty shows a small increase of Rs. 84,718 due to a better rice crop in the Province.

Land Customs.

There were no changes in the number of duty collecting stations in the Goa and Daman Frontiers. The receipts excluding the duty on Salt amounted to Rs. 78,391. The main fluctuations were a decrease of Rs. 13,397 under Import Duty, due to smaller imports of cocoanuts, betelnuts and kajunuts from Goa; and an increase of Rs. 1,985 in Export Duty, due to larger exports of rice from Supa Petha.

The collection of duty by the Southern Marátha Railway on dutiable traffic passing *vid* Castle Rock continued to give satisfactory results. There was a revival of the through traffic to Bombay and other British Ports, the number of wagons dealt with by the Customs Officers having increased from 10,712 to 14,362, the question of establishing a British Customs Post at Marmagao was under consideration, as also the proposed realignment of the frontier at Daman.

8. Opium.

Scales and Rates of Duty. There was no change during the year in the number or location of the opium scales or in the rates of the excise or export duty on opium.

The system under which the opium farms of the several districts of the Bombay Presidency including Baroda Cantonment and Aden, were managed was the same as in the previous year, except in the six districts of the Southern Division, Sátára and Thána, where the separate or single shop system was introduced from 1st August 1901.

Imports and Exports. The number of chests imported into Bombay during the year was 18,486½ against 21,638 on 1900-1901. The total number of chests disposed of was 19,106. Of these 947 were retained for home consumption, 551 were supplied to the Madras Government, 17,582½ were exported to China and 25½ to African ports. There were no exports to Cochin and Allepey, because these places have since July 1901 been supplied with opium by the Madras Government. The exports to China show a marked decline due to diminished consumption of the Indian drug. There existed a general belief that the outturn of Málwa opium during the year amounted to only 20,000 chests. Consequently the prices in the market continued high, with the result that the exporters had to reduce their shipments considerably.

Prices of Opium. The average prices of opium in the Bombay Market during the year were Rs. 1,254 per chest for new and Rs. 1,300 per chest for old opium, against Rs. 1,234 and Rs. 1,250 per chest.

respectively, in the preceding year. There was no change in the rate at which opium is issued from Government Depôts.

Issues and consumption.

The issues from Government Depôts during the year were 37,050 lbs. Of these, 12,510 lbs. were bought by Native Chiefs and the rest by licensed vendors in British Territory. A further quantity of 75,406 lbs. was purchased in the Bombay Market, and of 16,333 lbs. at the scales in Málwa for consumption in Native States and in British districts. The total consumption in British districts amounted to 89,005 lbs. against 92,917 lbs. in the previous year, the decrease being mostly noticeable in Ahmedábád (1,034 lbs.), Kaira (578 lbs.), Panch Mahals (510 lbs.), Sátára (373 lbs.) and Broach (314 lbs.), whilst Bombay showed an increase of about 463 lbs. In the Native States of the Presidency the consumption of opium was 74,156 lbs. against 88,919 lbs. of the previous year, the decrease being greatest in Baroda Territory (2,868 lbs.), Cutch (1,731 lbs.), Káthiáwár (3,618 lbs.), Mahi Kántha (549 lbs.), Rewa Kántha (392 lbs) and Pálanpur (2,096 lbs.)

Revenue and Expenditure.

Those Native Chiefs who are entitled to full or partial remission of duty on opium obtained from British Depôts or purchased in the open market received remissions to the amount of Rs. 80,047 against Rs. 90,540 in the preceding year. The total opium revenue of the year was Rs. 95,69,545. The Imperial share of the receipts, consisting chiefly of the export duty on opium, amounted, exclusive of refunds, to Rs. 88,00,502 against Rs. 1,03,42,882. The Provincial income derived mostly from the duty on opium consumed in the Presidency amounted, exclusive of remissions to Native States, to Rs. 7,69,043 against Rs. 7,91,048. The expenditure of the Department debited to "Imperial," being the cost of a portion of the Opium establishment employed in the City of Bombay and at the Ahmedábád Agency, was Rs. 26,296 against Rs. 25,998 during the preceding year. The Provincial charges are included in those of the A'bkári Department and cannot be accurately distinguished, but the previous year's estimate of Rs. 30,000 holds good. There was besides the cost of the establishments maintained on the Railway lines and in the interior for the prevention of smuggling, but these charges were fully met from contributions recovered from Opium Farmers.

9. Salt.

Sources of supply.

The salt with which the Presidency Salt Department deals falls under (1) Baragra salt manufactured at the Pritchard Works on the Runn; (2) Sea salt produced at works on the Coast; and (3) Imported Salt mainly from Portuguese India. The issue of salt from these three sources reached a combined total of 9,842,775 maunds as against 95,59,395 maunds in 1900-1901.

Baragra Salt.

The year opened with a balance of stock in hand amounting to 3,535,987 maunds, which, with a produce of 2,134,834 maunds brought the total quantity in stock to 5,670,821 maunds. The removals amounted to 2,020,720 maunds, less by 16,132 maunds than last year, but greater than those of any of the six preceding years. Excepting the issues to Bombay and Broach, which showed a slight increase, the distribution of Baragra salt for local consumption decreased considerably from 451,748 maunds to 393,591. Outside the Presidency, the only increase was in the issues to the United Provinces (854,694 maunds against 743,454 in 1900-1901). The decrease in issues for local consumption is attributed to the effects of famine and to contraband traffic in salt, especially in Baroda, where an increase in 1900-1901 of 1,157 maunds was turned into a decrease of 1,635 in the year under report. The loss and wastage written off amounted to 3·3 per cent. against ·22 in 1900-1901. The total crop of the season (1901-1902) was better than that of the previous year by 665,119 maunds, and the stock at the end of the year amounted to 3,462,759 maunds. The cost price at the Pritchard works was 1 anna 3 pies and the amount paid to the Agrias was Rs. 2,07,780, giving an average wage of Rs. 138 per man for a working season of seven months. A new agency was opened at Cambay. The quantity sold at the agencies totalled 334,867 maunds. The population of the salt workers at the village of Kharaghora was 2,259 as against 1,847 in the previous year with a birth and death-rate of 26·1 and 43·3, respectively. The number of patients treated at the dispensary was 3,283 against 4,855 in 1900-1901 when there was a cholera epidemic. Advances to Agrias reached a total of Rs. 9,436 against Rs. 11,228 in the previous year.

Coast Works.

The quantity of sea salt manufactured at the Government Salt Work at Dharasna and private works elsewhere on the coast amounted to 7,062,604 maunds against 10,153,825 maunds in the previous year, a decrease of 3,091,221 maunds, due to the early setting in of the monsoon and to high spring tides in April 1901. The removals on the whole increased by 355,293 maunds to 7,568,067 maunds. The bulk of this increase (*viz.*, 319,476 maunds) was in issues from the salt works near Bombay. The exports to the Central Provinces, Nizám's Territory, Calcutta and Madras Presidency show an increase of 440,531 maunds, while the removals to Central India, Mysore and within the Presidency decreased by 147,711 maunds. The issues from Umbargaon, Shiroda and Sanikatta were practically all for local consumption. The total wastage was 837,097 maunds, or a percentage of 8·8 against 9·10 in the previous year. The average prices were in the North and Middle Konkan 1 anna 7 pies, at Shiroda 4 annas, at Sanikatta 1 anna 7 pies per maund. The decrease in the salt manufactured and the increases in the sales brought the balance in stock at the close of the year to 1,554,283 maunds.

Imported Salt. Importations by land and by sea reached a combined total of 253,987 maunds, a decrease of 57,129 maunds due to the high rates prevailing in Goa consequent on a short supply. The importations *vid* Castle Rock, which in 1899-1900 were 505 maunds, and in 1900-1901 14,036 maunds rose to 66,732 maunds, in consequence of the reduction in freight rates.

Consumption. The total quantity of salt issued for consumption in the Bombay Presidency amounted to 2,731,011 maunds, giving an average per head of 10·71 lbs. against 11·38 lbs. in the previous year. The average for Gujarát alone was 8·91 lbs. per head against 9·7 in 1900-1901, and for the rest of the Presidency 11·4 lbs. per head against 12·01. The average market price varied from Rs. 4-2-5 in Bombay to Rs. 2-15-5 in Ahmedábád.

Revenue and Expenditure. The revenue from salt, including Rs. 83,926 on account of Provincial receipts, amounted to Rs. 2,25,89,143, a decrease of Rs. 73,595 on last year's figures. The import duties in salt by land show a decrease of 1,42,827, while excise duty realised Rs. 70,510 more than in the previous year. The total expenditure increased by Rs. 28,746 to Rs. 17,00,479.

Fish-curing yards. At the 27 fish-curing yards (13 in Ratnágiri, 14 in Kánara) 252,126 maunds of fish were cured and 44,491 maunds of salt were issued—these figures being the highest on record since 1891-92. Removals increased by 77,523 maunds to 188,259 maunds. The financial results showed a net profit of Rs. 14,509 against Rs. 4,207 in the previous year, the Kánara yards alone realizing a profit of Rs. 9,798.

Offences. Offences against the salt law numbered 1,678 or 758 less than in the previous year. Of these 1,050 were cases of clandestine removal of salt (850 in the Northern Division, 200 in the Southern). Cases of smuggling numbered 251 and of theft 36 against 383 and 44, respectively, in 1900-1901. The percentage of convictions was practically stationary at 95·9.

Compensation. As in the previous year no claims for compensation under the awards of the Mixed Commission were received.

SIND.

Sources of supply. The three sources of supply are the Maurypur Salt Works, the Saran and Dilyar Salt Deposits.

Production and sales. The year opened with a stock in hand of 261,024 maunds. The quantity manufactured during the year amounted to 320,945 maunds. Of this amount 269,876 were removed during the year, 13,776 maunds were issued duty-free to the Mir of Khairpur; wastage amounted to 9,326 maunds, leaving a closing balance of 288,991 maunds. Sales improved by 5,040 maunds, the Sukkur Salt Depôt and the Shamspir Salting Station alone showing small decreases. The average wholesale price of salt fell slightly from Rs. 3-7-7 to Rs. 3-6-10.

Imports and consumption. Imports of table and rock salt by private agency amounted to 1,263 and 8,160 maunds respectively against 1,148 and 8,577 in 1900-1901. Inclusive of these figures the total quantity consumed was 278,337 maunds, giving an average rate of 7·13 per head against 7 in the previous year.

Fish-curing. At the Shamspir yard 720 maunds were issued at Re. 1 per maund for fish-curing. 3,960 maunds of fish against 5,669 in 1900-1901 were cured.

Revenue and Expenditure. The gross receipts from Excise Duty and other charges amounted to Rs. 7,50,308 and the expenditure to Rs. 1,34,873 against Rs. 7,44,173 and Rs. 1,34,340 in the previous year.

Offences. The number of offences against the Salt Laws decreased from 212 to 185.

ADEN.

The quantity of salt manufactured decreased by 1,050 maunds to 83,886, of which 9,266 were consumed in British limits. The receipts amounted to Rs. 16,779 and the expenditure to Rs. 1,932. The exports from the Italian Salt Works at Sheikh Othman increased by 38,475 tons to 87,468.

10. Excise.

For details *vide* appendices to the Annual Report on A'bkári Administration for 1901-02 and Tables Nos. 13 and 16 under V.—Excise appended to Financial and Commercial Statistics of British India for 1902.

Change in the system. Consequent on the passing of the Bombay Act V of 1901 (Hemp Drugs Act), the following changes were introduced in the year under report in the hemp drugs arrangements in this Presidency.

(*a*) Cultivation of hemp is restricted to the Khánápur Táluka of the Sátára District and the Nevása, Ahmednagar, Ráhuri and Kopargaon Tálukas of the Ahmednagar District.

(*b*) The drugs manufactured in these tálukas are stored in the Central and Bonded Warehouses established at Ahmednagar City, Belápur and Nevása in the Ahmednagar District and Vita in the Sátára District.

(*c*) Duty at the following rates is levied on all intoxicating drugs issued from the Warehouses or imported from the Central Provinces, the Punjab and the United Provinces:—On Bhâng @ annas 8 per seer of 80 tolas, on Charas @ Rs. 2 per seer, on Gânja @ Rs. 4 per seer.

(*d*) The wholesale business is separated from the retail vend. The licenses for the wholesale vend are issued to persons approved by the Collector and the Commissioner on payment of a fixed annual fee of Rs. 15 each. The privilege of retail vend in each shop separately is sold by public auction, no objection being taken to one person bidding for several shops.

(*e*) The maximum quantities of intoxicating drugs which may be transported from one place to another within the Presidency or sold by a retail vendor to one and the same person in the aggregate on any one day are limited to 5 tolas in the case of gânja and charas or any preparation or admixture thereof and to 20 tolas in the case of bhâng or any preparation or admixture thereof.

Brewery. The only brewery at work was that at Dâpuri near Poona.

Consumption of country spirit. There was a considerable increase in the consumption of country spirit in the Town and Island of Bombay and in the Thâna, Poona, Khândesh and Dhârwâr Districts owing to a comparatively favourable season. The Ahmedabad, Kaira, Panch Mahâls, Broach and Bijâpur Districts show decreases due to the after effects of the last famine. On the whole there was a net increase in sales of 73,793 gallons of the strength of 25° U. P.

Number of trees tapped for extraction of toddy. The number of toddy trees tapped rose from 238,053 to 241,993, the increase being confined to the Surat and Sholâpur Districts. The toddy extracted was used exclusively for consumption in the raw state everywhere except in Bombay and the districts of Kânara and Ratnâgiri. In these three places it was partly distilled into spirit. The total quantity of spirit distilled was 195,598 gallons of 25° U. P. against 175,427 gallons in the preceding year.

Shops for the sale of intoxicating drugs. The number of shops licensed for the retail vend of intoxicating drugs was 538 against 639 and the sales decreased from 83,372 to 29,762 seers. This is due to the change in the system described above.

Spirit and Malt liquor of Indian manufacture excised at tariff rates. The consumption of country spirit such as rum and locally brewed beer, the duty on which is charged at tariff rates, amounted to 745,653 against 522,083 gallons in the preceding year.

Financial results. The receipts on the whole improved from Rs. 82,18,172 to Rs. 90,37,503. The principal items showing increases are (1) still-head duty on country spirit (Rs. 4,70,745); (2) deficiency in minimum guaranteed revenue on account of still-head duty (Rs. 1,80,852); (3) license fee for sale of country spirits (Rs. 1,43,314); (4) tree-tax on trees tapped for extraction of toddy for consumption (Rs. 10,043); (5) fees on permits, *i.e.*, duty on intoxicating drugs (Rs. 1,11,963), and (6) duty on malt liquor (Rs. 14,180).

Incidence of A'bkâri taxation. The average incidence of A'bkâri taxation per head of population according to the Census of 1901 was 9 annas against 8 annas and 5 pies in the preceding year.

The charges of the Abkâri Department are combined in the accounts of the Opium Department. The total expenditure of the Excise Department, however, was Rs. 3,16,290 against Rs. 3,25,867 in the previous year. In addition to this, a sum of Rs. 4,07,896 was paid in the shape of compensation (*a*) to the Municipality of Bombay for loss of the revenue formerly accruing to it from the sale of shop licenses and (*b*) to some of the Native Chiefs in the Presidency in pursuance of abkâri agreements between them and Government.

SIND.

Change of system. The only change which occurred in the system of administering the A'bkâri revenue was that the right to sell intoxicating drugs by retail for the whole district was abolished from the 1st August and that of auctioning the privilege of retail sale of drugs in each shop separately was introduced.

Revenue. The A'bkâri revenue of the Province for the year from all sources rose from Rs. 12,21,054 to Rs. 12,67,114. The increase is due chiefly to larger realization from still-head duty on country spirits and fermented liquors.

Liquor. The number of licenses issued for the sale of country and foreign liquor was respectively 309 and 125 as against 308 and 109 in the previous year. The total fees realized amounted to Rs. 52,881 as against Rs. 49,859. The fees for licenses for the manufacture of country liquor and the number of stills licensed remained unchanged, *viz.*, Rs. 3,104 and 21, respectively.

Toddy. The right of drawing and selling toddy was sold for Rs. 1,425 as against Rs. 1,325 in the previous year, and the number of shops for the sale of toddy was 9, the same as in the preceding year, *viz.*, 8 in Karâchi and 1 at Kotri.

Intoxicating Drugs. The number of shops licensed to sell intoxicating drugs other than opium was 515 against 526 last year. Some of the shops remained closed as the bids were not sufficiently high.

Incidence of Taxation. The incidence of taxation per head of population (according to the census of 1901) calculated on the total A'bkâri revenue from all sources was Rs. 0-6-4 as against Rs. 0-5-5 in the previous year.

Expenditure.

The expenditure connected with the A'bkári Department was Rs. 17,393 as against Rs. 16,444 in 1900-1901.

ADEN.

The gross receipts, including Perim, amounted to Rs. 1,08,031 against Rs. 99,133, the increase being almost entirely due to larger realisations of import duty on liquor. The charge incurred amounted to Rs. 7,901 against Rs. 7,434 in the previous year.

11. Cotton Duties Act.

Though the number of mills increased by two only (from 135 to 137), the weight of yarn spun exceeded the outturn of the previous year by 171,402,712 lbs., the improvement being due to a better crop and increased demand for Bombay goods in home and foreign markets. The revenue shows a net increase of Rs. 4,99,195, of which Rs. 79,524 were due on outstanding balances. 6,881,151 lbs. were exempted from duty and drawback was granted on 2,890,274 lbs. The total exports, viz., 9,771,425 lbs., exceeded those of last year by 2,352,160 lbs.

12. Stamps.

The gross receipts reached the highest figures on record, viz., Rs. 62,73,987. Receipts under the Stamp Act contributed Rs. 25,40,605, while those under the Court Fees Act, which had been on the decline since 1899, showed an improvement of Rs. 3,65,629 over last year's figures to Rs. 37,35,383. The charges declined by Rs. 7,568 to Rs. 2,56,224.

Nine prosecutions were instituted for breaches of the Stamp Law, in which eleven persons were involved. Seven convictions were secured and Rs. 29 recovered in fines.

Collectors and Civil Courts impounded 1,186 documents and inflicted fines to an aggregate of Rs. 18,648.

13. Income Tax.

The total final demand, including penalties and arrears, was Rs. 33,14,567, as compared with Rs. 41,92,883 in the previous year. The collections amounted to Rs. 32,57,606 against Rs. 38,00,109 in 1900-1901. Of the outstanding balance Rs. 2,06,084 have been since collected in Bombay City; the remaining sum pertains to the Northern and Central Divisions.

14. Forests.

The falling off of Rs. 2,90,901 in the forest revenue was due to the decrease in the special receipts from famine grass operations. For the same reasons the expenditure also decreased by Rs. 3,45,766.

15. Local Funds.

INCORPORATED LOCAL FUNDS.

The transactions in connection with the District Local Funds and the Steam Boiler Inspection Fund have been dealt with in Chapters III and IV respectively.

Sind Village Officers' Cess Fund.

With an improvement in the recoveries from colonists on account of Jámrao Survey charges, the receipts of this fund advanced from Rs. 4,43,189 to Rs. 4,85,624. The charges remained practically stationary at Rs. 5,09,552.

Government Central Book Depôt Fund.

The receipts of the fund increased by Rs. 1,670 owing to a larger sale of books, while the expenditure decreased by Rs. 26,577. The closing balance of the fund improved by Rs. 32,390.

EXCLUDED LOCAL FUNDS.

Cantonment Funds.

The Aden, Bhúj, Karáchi, Purandhar and Rájkot Cantonment Funds, which are not self-supporting, showed a deficit of Rs. 16,891 against one of Rs. 22,577 in 1900. The total closing balance of the self-supporting Cantonments declined by Rs. 14,390, consequent on the excess of expenditure over receipts in the case of the Ahmednagar (Rs. 2,546), Belgaum (Rs. 2,268) and Poona Cantonments (Rs. 12,846). The largest increases were shown by Jacobabad (Rs. 3,903) and Baroda (Rs. 929).

In addition to the existing loan of Rs. 33,600, the Poona Cantonment obtained a further advance of Rs. 9,215 for the construction of a central market.

The expenditure on plague in Cantonments was Rs. 16,065 against Rs. 57,032 in 1900-01.

Mounted Police Funds.

The receipts of these funds improved from Rs. 1,17,943 to Rs. 1,33,099, while the expenditure fell from Rs. 1,31,764 to Rs. 1,27,998. The closing balances (Rs. 44,990) improved by Rs. 5,101 on last year's figures. A new fund was opened for the Lárkhána District by the transfer of a portion of the cash and invested balances of the Karáchi and Shikárpur Funds. The Belgaum and Poona Funds were granted loans of Rs. 1,700 and Rs. 600, respectively. Increases were shown by the Hyderabad (Rs. 7,904) and Shikárpur Funds (Rs. 2,904), while the Pálanpur (Rs. 5,310), Thar and Párkar (Rs. 4,032) and Khárághoda (Rs. 3,332) show the greatest decreases.

Port and Marine Funds.

With increased receipts on account of port dues and a restricted outlay on works, the Northern Ports Fund balance improved from Rs. 31,656 to Rs. 41,517. Owing to increased expenditure on "Establishment" and "Buoys" the Southern Ports Fund's balance decreased slightly by Rs. 507 to Rs. 21,744. With a decrease in receipts under "Survey Fees" and the investment of Rs. 9,300 from the cash balance, the Steam Vessels Survey Fund was reduced by Rs. 9,042. The Sea Pilotage Fund opened with a debit balance of Rs. 1,220, which was cleared off at the end of the year with the help of a Government contribution of Rs. 1,102. The Port Trust Funds and the Indus Conservancy Funds have been dealt with in Chapter III.

Educational Funds.

Under the orders of the Government of India the cash balances of these funds are being gradually transferred to private trustees. Twenty-six of these funds were thus disposed of.

Medical and Charitable Funds.

These include the funds of one veterinary and eight medical dispensaries with an aggregate cash balance of Rs. 10,716. These are being gradually excluded from the Accountant General's books.

Other Funds.

The aggregate receipts of the Station Funds decreased by Rs. 15,040, of which Rs. 11,000 are to be accounted for by the abnormal contribution received in the preceding year towards the construction of a dispensary at Mátherán. The aggregate expenditure increased by Rs. 8,027. The receipts and charges of the Suitors Fee Funds were practically stationary and the balance stood at Rs. 6,642. The Káthiáwár Prant Funds fell off considerably, by Rs. 27,441, while the States General Contribution and Endowment Funds balance decreased from Rs. 1,06,366 to Rs. 27,358. The Pálanpur General Fund improved its position, while the balance of the Mahi Kántha and of the Rewa Kántha Funds fell off by Rs. 46,036.

16. Municipal Revenue.

A notice of the Income and Expenditure of Municipalities is included in the general review of the administration of these bodies in Chapter III.

CHAPTER VI.—VITAL STATISTICS AND MEDICAL RELIEF.

1. Births and Deaths.

For details *vide* Appendices to the Annual Report of the Sanitary Commissioner for the Government of Bombay for 1901, as also tables under XIII.—Vital Statistics appended to the Report on Judicial and Administrative Statistics of British India.

Births and Deaths among Europeans.

Among the European civil population there were recorded in 1901 217 births (11·54 per mille) and 251 deaths (13·35 per mille) against 260 births (14·06 per mille) and 373 deaths (20·17 per mille) in 1900.

Births and Deaths among Eurasians.

2. Among Eurasians births numbered 133 (22·84 per mille) against 149 (17·49 per mille) in 1900, while the number of deaths were 180 (27·45 per mille) against 247 (28·99 per mille) in the previous year.

Number of Births among the Native Population.

3. Among the native population there were recorded 465,647 births, the lowest on record since 1891, representing a ratio per mille of 25·19 against 26·87 in 1900 and 34·15 for the decade. The decrease of 40,015 for the year was shared by all the Registration Districts except Gujarát and by all the Collectorates except Khándesh, City of Bombay, Ahmednagar, Broach, Kaira and the Upper Sind Frontier.

Births by Sexes.

4. Out of every 100 births 52·05 were of males and 47·95 of females. The greatest number of births (54,554) was registered in October and the least (24,840) in March. In December 1901 the birth-rate again reached the mean of the previous ten years.

Number of Deaths.

5. Deaths among the native population numbered 686,134 or 632,649 less than in 1900, giving a ratio per mille of 37·12 (37·52 male and 36·70 female). The highest death-rate was in the City of Bombay (77·78 per mille) and the lowest in the Upper Sind Frontier (13·21 per mille). In 1900 the rate ranged from 281·06 in the Panch Maháls to 25·42 in the Upper Sind Frontier. The highest death-rate among females was in Bombay City (81·93 per mille).

Deaths by Ages.

6. The largest ratio of deaths per mille (120·05) was among persons of 60 years of age and upwards. Among children under 5 the ratio was 83·16 per mille. The most immune age was between 10 and 15 years (ratio 17·39 per mille).

Deaths by Races.

7. The death-rate among Musalmans was 28·10 (in 1900, 43·59) per mille, the maximum rate being in the Belgaum Collectorate (76·00) and the minimum in the Upper Sind Frontier (12·00). Among Hindus the death-rate was 39·69 (in 1900, 77·36) per mille with a maximum of 186·02 in the City of Bombay and a minimum of 19·96 in Thar and Párkar. Among Christians and Pársis the rates were 27·15 and 27·14, respectively, against 52·64 and 35·74 in 1900.

Deaths by Causes.

8. The chief causes of death were fevers (15·80 per mille of population), plague (6·94), dysentery (3·26) and other causes (9·72).

Cholera.

9. Cholera accounted for 13,600 deaths against 163,889 in 1900. The disease was somewhat severe in Dhárwár, Belgaum and Bijápur. Sind and Gujarát were practically free. The mortality reached its maximum in April (3,016 deaths).

Small-pox.

10. There were 5,340 deaths from small-pox against 9,885 in 1900 and a decennial mean of 3,724. The Southern Registration District recorded the highest mortality (2,686), 1,108 deaths occurring in the Kánara District alone. In Gujarát only 124 deaths were recorded.

Fever.

11. Deaths from fever numbered 291,591 against 543,319 in 1900 and a decennial mean (which includes deaths from plague) of 405·494. As in the previous year the highest death-rate was in Gujarát (29·11), Ahmedábád showing a ratio per mille of 43·69. The lowest death-rate was in the Southern Division (10·87 per mille).

Plague.

12. The mortality (128,259) from plague was the highest on record since 1896. All districts were affected except Lárkhána, Thar and Párkar and Upper Sind Frontier. The highest death-rates were in Belgaum (34·07), Dhárwár (28·65) and Bombay City (24·58). The lowest was in Kánara (1·16). The monthly mortality ranged from 25,193 in October to 2,291 in June.

Dysentery and Diarrhœa.

13. Under this heading there were recorded 60,198 deaths against 218,243 in 1900 and a decennial mean of 64,788. The higest ratio was in Sholápur (8·12 per mille) and the lowest in Lárkhána and Upper Sind Frontier (·03 per mille).

Violent Deaths.

14. 7,092 persons met with violent deaths, of which 3,133 cases were of drowning, 2,696 being accidental.

Deaths from other Causes.

15. Deaths from causes other than those specified numbered 179,694, a percentage of 27 per cent. as compared with deaths from all causes.

16. The fall in prices of food-grains does not seem to have been accompanied by an improvement in the birth-rate which was lower than that of the preceding year, and is the lowest on record since 1891-92. The death-rate, though half of that of the preceding year, was still above the decennial mean. The heaviest mortality occurred amongst those at the extremes of life, being heaviest amongst those of 60 years of age and over, and among children under one year. Influence of price on birth and death rates.

2. Emigration.

Emigration from the Port of Bombay under Act XXI of 1883 was under the orders of the Government of India restricted as in previous years to artisans for the British Central Africa Protectorate. Four artisans emigrated during the year. Twenty emigrants whose period of service had expired returned from Mombasa and the Seychelles. Port of Bombay. Port of Karáchi.

2. With the completion of the Uganda Railway no further Indian labour was indentured. 6,366 emigrants returned, and 6 were reported to have died in Uganda, bringing up the total of deaths since 1896 to 1,977. Receipts on account of estates of deceased emigrants amounted to Rs. 19,312 and disbursements to Rs. 22,107.

3. Immigration.

With the exception of immigration from Cutch and the Káthiáwár States into Sind there was practically no movement of people into the Presidency. Some 60,000 immigrants are computed to have come to Karáchi in search of work—but the majority returned to their homes with the break of the monsoon. Charges incurred in connection with the repatriations of immigrants amounted to Rs. 2,944. Elsewhere in the Presidency immigration was confined to a temporary movement of population from famine-stricken Native States into British territory.

4. Medical Relief.

For details *vide* Appendices to the Annual Report of the Civil Hospitals and Dispensaries for 1901 and also tables under XIV.—Hospitals appended to the Report on Judicial and Administrative Statistics of British India.

The total number of institutions in the Presidency and Sind increased from 547 to 627. Of these, 314 were private institutions and 65 were supported from Municipal or Local Funds, while State-aided institutions numbered 188. The number of State institutions was 60, of which 11 were in the City of Bombay, including 4 dispensaries for women. Number of Institutions.

2. The total number of persons treated at the State and aided institutions was 1,603,794 against 1,536,422 in 1900. At the private institutions the number was 1,045,566 (6,081 in-door and 1,039,485 out-door) against 1,003,509 in 1900. In-door patients at the State and aided institutions were fewer by 5,697, the hospitals in the City of Bombay contributing a decrease of 1,644. Out-door patients increased by 73,069 to 1,558,603. Excepting in Gujarát, the attendance at hospitals seems to have returned to the normal. The daily average attendance of women fell from 5,035 in 1900 to 3,809 in 1901. The death-rate at the State and aided institutions fell from 15·6 to 10·6. Number of Patients treated.

3. Malarial fevers caused an increase of 95,014 cases, of which the Dakhan and Gujarát contributed 46 and 24 per cent. respectively. The percentage of malarial fevers to total treated was highest in Gujarát (34·0), and was largely in excess of the previous year's percentage (28·5). Increases were shown in the admissions for affections of the eye and ear (15,387), intestinal worms (7,382), diseases of the digestive system (6,234) and respiratory diseases (5,760). Venereal affections show an increase, the ratio per cent. of total treated being 2·2 against 2·0 and 1·7 in the two previous years. Admissions for small-pox (493) were one-third of those in 1900, but twice as many as in 1899. Admissions for cholera, dysentery and diarrhœa together totalled 60,826 fewer than in 1900. In Gujarát, dysentery and diarrhœa cases fell by 26,963. Admissions for tubercle were 3,904 against 4,001 in 1900. Admissions for plague were 104, of whom 24 died, the remainder being transferred to plague hospitals. Diseases.

4. The surgical operations performed numbered 63,948 with a mortality of 0·54 per cent. as compared with 62,965 and a mortality of 0·62 per cent. in 1900. Of this number all but 387 were principal operations. Surgical Operations.

5. Attendance of male patients improved by 54,659 mainly in the Dakhan, and that of women by 17,651 almost entirely in the Konkan and the Dakhan. The attendance of children diminished by 4,938. The number of Hindu patients increased by 27,432 and of Mussulmans by 40,831. Attendance by Sexes and Races.

6. The total income was Rs. 10,95,528 against Rs. 11,25,484 in 1900. The contributions from Government and local bodies were Rs. 7,01,579 and Rs. 1,29,011 respectively. Subscriptions and donations amounted to Rs. 20,161, while hospital stoppages realised Rs. 57,935 against Rs. 67,933 in 1900. Receipts.

Expenditure.

7. The net cost was Rs. 9,97,036 against Rs. 10,03,499 in 1900. The cost per patient fell slightly to Re. 0-10-0, and the cost per diet to Re. 0-2-11. Of the actual expenditure Government paid 62 per cent.

Leper Asylums.

8. For the treatment of lepers there are four State-aided institutions with an average attendance of 910.

5. Lunatic Asylums.

For details *vide* Appendices to the Annual Report on Lunatic Asylums for 1901-1902 and tables under XV.—Lunatics appended to the Judicial and Administrative Statistics of British India.

Population.

In the 6 Lunatic Asylums in the Presidency, including Sind, there were 759 inmates at the beginning of the year; 310 were admitted during the year; 69 were discharged cured; 150 transferred to their friends; 77 died, leaving 773 in the asylums at the end of the year. The daily average population was 769, including 100 criminal lunatics. Of those admitted during the year, Hindus numbered 112, Mahomedans 69 and Europeans 92. The daily average of sick inmates was 41. The percentage of lunatics cured to the daily average population was stationary at 9.

Causes of insanity.

2. Of 619 cases it was found that the causes of insanity were physical in 465 and moral in 154. 136 cases were alleged to have resulted from indulgence in narcotics and spirit-drinking.

Receipts and Expenditure.

3. The charges amounted to Rs. 1,62,157. Fees from paying patients realised Rs. 19,793. The net profit on work done by inmates amounted to Rs. 2,651.

6. Sanitation.

The total expenditure on sanitation incurred by District Municipalities in the Presidency, inclusive of Sind, decreased from Rs. 14,27,572 to Rs. 14,22,474. The slight increases under conservancy and drainage were counterbalanced by the decrease in expenditure on water-supply.

Conservancy.

2. The charges under this head amounted to Rs. 9,91,777. The most marked fluctuation was a decrease of Rs. 16,603 in the expenditure in the Central Division consequent on the curtailment of conservancy establishments in the districts of Poona and Ahmednagar. The increase of nearly Rs. 13,000 in Sind was chiefly due to the special charges incurred by the Umarkot and Karáchi Municipalities.

Water-supply.

3. In spite of large increases of Rs. 15,139 and Rs. 11,169, respectively, in the Northern Division and Sind, there was a general decrease of Rs. 3,333 in the outlay incurred by Municipalities on water-supply. In Sind the increase was due to the sinking of a new well near Karáchi and to the purchase of pumping machinery. In the Northern Division the expenditure was both necessary and desirable in view of the conditions of the year. The large decrease of over Rs. 30,000 in the Central and Southern Divisions is attributed to the absence of abnormal expenditure consequent on an increased rainfall.

Drainage.

4. There was a slight decrease in the charges incurred on account of drainage. The increases in the Southern Division, where the outlay was little more than nominal, were more than counterbalanced by the decreases in the Northern and Central Divisions. The decrease in the Northern Division is due to the absence of special expenditure such as was incurred in 1901 by the Thána Municipality.

Village Sanitation.

5. The Bombay Village Sanitation Act of 1889 has been introduced into 292 villages, there being no increase in the number this year. The number of selected villages in which the Village Sanitary Inspection Book has been introduced stands at 3,395; of this, in about 1,545 villages the book has been written up by the officers of the Sanitary Department.

Bombay Municipality.

6. The total expenditure of the Health Department of the City of Bombay was Rs. 19,87,053 against Rs. 21,68,478 for 1900-1901. Deducting receipts the net expenditure was Rs. 10,86,917.

Inspection of Vessels in Bombay Harbour.

7. 34,637 vessels with 886,310 crew and passengers were examined as compared with 65,966 vessels with 1,173,050 passengers in the previous year. The decrease is due to the fact that vessels sailing for ports on the Kolába Coast as far south as Roha were exempt from medical inspection. Seventy-three cases of plague, 159 of measles, 46 of jigger and 67 of chicken-pox were discovered.

Pilgrim Traffic.

8. The restriction on pilgrim traffic with Jeddah was continued. The number of pilgrims returning from Mecca *viâ* Aden was 1,290. Three cases of small-pox were discovered among them.

7. Vaccination.

For details *vide* Appendices to the Annual Report on Vaccination for 1901 and tables under XVI.—Vaccination appended to the Judicial and Administrative Statistics of British India.

In British districts and in the Native States under the supervision of the Sanitary Department there were 470,517 persons primarily vaccinated and 50,471 re-vaccinated against 586,478 and 73,843, respectively, in the previous year. The total operations show a net decrease of 139,333 or 21·10 per cent., which is attributed to the effects of plague and famine.

2. Out of 470,517 primary vaccinations 433,455 or 92 per cent. were successful and 31,587 unsuccessful. In 1900 90 per cent. were successful. Children under one year of age successfully vaccinated numbered 287,388 against 349,275 in the previous year. The percentage of infants protected to infants available was 76·56. Primary vaccination.

3. Of the above numbers 51·77 per cent. were males and 48·23 females; 71·02 per cent. were Hindus, 20·19 per cent. Mussalmans, 0·83 per cent. Christians and 0·33 per cent. Pársis. Primary vaccination by sex and race.

4. Re-vaccinations numbered 50,471, of which 30,242 or 59·92 per cent. were successful. In 6,720 cases the operation failed. Excluding "unknown cases" the percentage of success worked out to 81·82. Of the number re-vaccinated 73·93 per cent. were males. Re-vaccination.

5. There was a decrease of Rs. 20,447 in the expenditure, which amounted to Rs. 2,70,740. The average cost per each successful case worked out to annas nine and pies five against annas eight and pies two in the previous year. Expenditure.

8. Veterinary.

No epidemic cattle disease was reported from Khándesh, Sholápur, Sátára, Kolába, Bijápur, Kaira and Ahmedábád. From other districts, including Bombay City, 739 cases were reported against 3,136 during 1900-1901, while the mortality fell from 54 per cent. to 25. The decline in the number of attacks is attributed to the decrease in the number of animals and to the unusual dryness of the season. Cattle Disease.

2. All the Veterinary Assistants received instruction in inoculation against rinderpest, but only a few inoculations were possible, as the year was free from the disease excepting a few sporadic cases in the Násik and Poona Districts. Inoculation.

3. The number of dispensaries in the Presidency and Sind remained the same (7 itinerating and 12 stationary). The total number of animals treated was 21,846 in the Presidency proper and 5,709 in Sind. The percentage of cured was 87 in the Presidency and 94 in Sind. Dispensaries.

4. The receipts amounted to Rs. 62,784 and the expenditure to Rs. 37,782 against Rs. 37,545 and Rs. 36,994, respectively, in 1900-1901. Receipts and Expenditure.

5. Of the 20 animals admitted to the Government Lazaretto, 6 were destroyed as glandered cases. Glanders and Farcy Act.

6. 5,055 horses, donkeys and mules were imported into Bombay, including 1,694 animals from Australia. Imports.

7. The expenditure incurred in connection with the Glanders Act rose slightly from Rs. 9,128 to Rs. 9,414. Expenditure.

CHAPTER VII.—INSTRUCTION.

The University.

1. The Government agency for instruction and examination consists of the Educational Department and the University.

The University of Bombay, established in 1857, is a body corporate, consisting of a Chancellor, Vice-Chancellor and Fellows. The Governor of Bombay is *ex-officio* Chancellor and nominates the Vice-Chancellor to hold office for two years. The Fellows are appointed by Government. Since 1892 two nominations of Fellows have been placed at the disposal of the University until further orders on certain terms.

The Chancellor, Vice-Chancellor and Fellows constitute the Senate or Legislative Council, and the Senate is sub-divided into the four Faculties of Arts, Law, Medicine and Civil Engineering. The four Faculties each year elect representatives who, with the Deans, form the Syndicate or Executive Council under the Vice-Chancellor as President.

The function of the University is that of ascertaining, by means of examination, the persons who have acquired proficiency in different branches of literature, science and art, and of rewarding them by academical degrees as evidence of their respective attainments. A new degree, that of Licentiate in Agriculture, has been created during the last five years. This power of conferring degrees makes the University the crown and completion of the whole system of public instruction; and the influence so given is further extended by the rule that a College must be affiliated or recognized as worthy before its pupils can appear at the degree examinations. A proposal for affiliation must be recommended by the Syndicate to the Senate, and if approved by the Senate requires the sanction of His Excellency the Governor in Council. The University also holds an Entrance or Matriculation Examination which must be passed before a pupil can begin the courses prescribed for the affiliated Colleges. And as the whole school course has to be regulated so as to lead up to the Matriculation Examination, the influence of the University is supreme throughout the Presidency.

The Educational Department. Director. Inspectors.

2. The Educational Department is under a Director, who is responsible for the administration of the Department in accordance with the general educational policy of the State.

For the working of the Department the Presidency is marked out into four divisions, each under an Inspector. These divisions coincide with the revenue divisions. Each Collectorate in these four divisions has a Deputy Inspector; and there are Divisional Vernacular Text-book Committees, presided over by the Inspectors, whose duty it is to report on the merit of works submitted for the patronage of Government or for the approval of Government as text-books to be used in primary schools. The members of these Committees represent the different interests and communities of the division. A Translator, who is also Vice-Principal of the Local Training College, is attached to each Committee. His duty is to prepare and revise school books and to teach in the Male Training College. There is also a Provincial Committee composed of the Inspectors, of specialists, and of gentlemen of general reputation for scholarship, whose business it is to assist Government in the selection of text-books for Secondary Schools.

The Native States have generally adopted the Government system. Baroda and the first and second class States in Káthiáwár employ their own Inspectors. The smaller States as a rule place their schools under the supervision of the Government staff. The minor States in Káthiáwár are administered by an Agency Educational Officer.

Colleges.

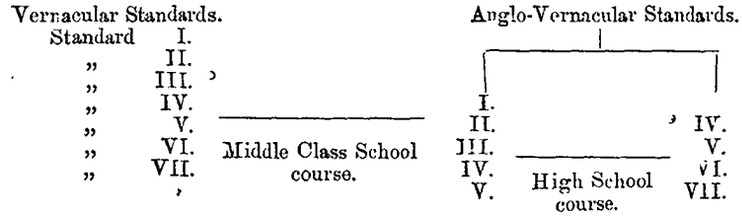
3. The educational institutions, for which this superintending agency is provided, comprise schools of various grades and Colleges affiliated to the University. In Colleges the course of instruction and the terms of residence are regulated by the requirements of the University; but in all other points the Government Colleges, which are supported by grants of public money and by endowment funds, are under the Government Department. The connection of the State with private Colleges, except in so far as the approval of the Governor in Council is necessary to their recognition, is limited to the payment of grants-in-aid, the amount of which is generally a fixed sum.

Schools; special.

4. Schools below the rank of a College are divided into two classes, according as they give instruction for general or for special purposes. The latter include institutions for the encouragement of art and industry, commercial schools or classes, medical, veterinary, engineering and agricultural schools, and normal schools which, with the exception of a few aided classes, are for the training of masters and mistresses in vernacular schools.

General.

5. 'Schools which impart a general education are divided into the two classes of Vernacular and English. For the course of instruction in these schools, standards are prescribed by Government, each of which is intended to occupy a boy of average intelligence for one year. These standards, beginning from the Vernacular alphabet and reaching up to the University Matriculation Examination, are as follows :—



Thus if a boy commences school work at the age of six, he will have eleven years of study before he matriculates, unless he is at any time able to pass two standards in a year. The seventh Vernacular standard is that prescribed for the Examination for the Third Grade Public Service Certificate. Side by side with the seven ordinary Vernacular standards there is a set of five simpler standards, which are called Rural standards designed to give the cultivator such useful education as is suited to him.

High Schools.

6. By a somewhat arbitrary division the schools, for which these standards are prescribed, are distinguished as high, middle, and primary schools. High schools are schools in which the medium of instruction is English, and are intended to prepare boys for Colleges affiliated to the University. But at the same time they attract boys who have no intention of joining the University, but intend to present themselves for the University School Final Examination with a view of obtaining a qualification for employment either in Government service or in business. This examination is a test for admission to the Public service.

Anglo-Vernacular or Middle class Schools.

7. The Anglo-Vernacular schools, in the same way, have a double function. As preparing boys for the second grade Public Service Certificate Examination which is held according to Anglo-Vernacular Standard V, they take up the first two standards of the high school course, but without the classical language, and so far they are properly called middle class schools. But their most important duty hitherto has been the preparation of boys for the high schools, and most of them do not go beyond the first three standards, in which English and other subjects are taught through the Vernaculars.

Primary Schools.

8. Primary schools include Vernacular schools of various kinds rising from the elmentary village school, in which the lower standards only are attempted by the pupils, up to the really middle class town school, which prepares boys for the 3rd Grade Certificate. Midway between the extremes come schools for girls and the ordinary village schools for boys. In the report which follows, mention is made of English classes. These are in reality nothing more than good Vernacular schools with a class of boys attached who have passed the fourth standard and are willing to pay an extra fee for a special English class.

Classification of schools according to the funds by which they are supported.

9. Schools are again divided into Government, Local Board, Municipal Board, State and private schools. Private schools are assisted by Government grants according to the results of examinations held each year or every other year by the Government Inspectors. Some of these schools whose permanent character is established receive fixed grants annually for a term of years. In a few cases fixed grants are given according to arrangements made before the grant by results system was adopted. State schools belong to Native Chiefs, but are in many cases inspected and in some cases managed by Government officers. Local Board and Municipal Board schools also receive fixed grants from Government. This grant is generally one-third of the total expenditure on these schools. Government schools are schools mainly supported from the general revenues.

Local Board Schools.

10. Local Board schools, which include second grade Anglo-Vernacular schools and primary schools, are mainly supported out of the one-anna cess levied (under Bombay Act III of 1869) on every rupee of land revenue. One-third of the cess is devoted to education, and Government assist by a grant which is not to exceed half the amount available from the cess and from school fees and contributions. The whole local income made up from these sources constitutes the educational fund of the several Collectorates, and is expended under the supervision of District Local Board Committees with Collectors as Presidents. Under the District Local Board Committees are sub-committees, one for each táluka, and it is the duty of the Government Inspectors to consult with these Committees, and to suggest such measures as are required to meet the educational wants of each táluka or district. Subject to a general obligation to conform to the standards and rules of the department, Municipalities have the option of managing and administering their own schools.

2. Education.

For details *vide* appendices to the Annual Report of the Director of Public Instruction and tables under X—Education appended to the Judicial and Administrative Statistics of British India.

Number of Institutions and Pupils.

1. The total number of public institutions in the Presidency and Sind fell from 9,663 to 9,548, while the attendance declined from 569,133 to 568,776. There were in addition 2,703 private institutions with an attendance roll of 71,092 pupils. The total number of educational institutions was 12,251, attended by 639,868 pupils.

Collegiate Education : Arts Colleges.

2. One additional Arts College was opened at Junágad, bringing up the total to 10, with an attendance of 1,911 male and of 30 female pupils. Of this number 5 colleges attended by 713 pupils were under public management, the remainder being aided institutions. Of those under public management two were under the control of Government, and were supported at a cost of Rs. 1,40,081. The total expenditure on the Arts Colleges amounted to Rs. 3,52,824, of which Rs. 1,28,926 were contributed from Provincial Revenues. Fees realised Rs. 1,32,561.

Professional Colleges.

3. These numbered five as in the previous year. The attendance increased from 979 to 1,064, including female pupils. The two Law Colleges in Bombay and Poona had an attendance of 348. The expenditure on these two institutions was Rs. 26,794, of which Rs. 21,942 were contributed in fees. The one Medical Institution, *viz.*, the Grant Medical College, was attended by 539 students. There were in addition four Medical Schools, one each at Poona and Ahmedábád, and two at Hyderábád (male and female). These four schools were attended by 235 pupils. Excluding charges of the Grant Medical College, which are borne by the Medical Department, the expenditure on Medical Institutions amounted to Rs. 1,13,596, of which Rs. 75,721 were met from fees. The daily average attendance at the Poona College of Science was 121, and would have been greater still had accommodation been available. The expenditure of the College of Science was Rs. 69,436, of which Rs. 14,323 were met from fees. The Agricultural Class had an average attendance of 15; the charges incurred in connection with it (Rs. 9,515) were entirely borne out of Provincial Revenues.

School Education. Results of Examinations.

4. The number of candidates for the Matriculation Examination increased from 3,511 to 3,634, of whom 1,064 had been sent from institutions under public management and 542 from aided institutions. The percentage of passes in the case of the former was 51 and in the case of the latter 49. Unaided schools had a percentage of 35, while only 10 per cent. of private students were successful. For the University School Final Examination there were 1,162 candidates against 983 in the previous year. Of these 26 per cent. were successful.

Secondary Schools : Boys.

5. Excluding girls' schools, the number of secondary schools was 427 with 43,397 pupils as compared with 416 schools and 42,554 in 1900-1901. 105 of these, attended by 25,419 pupils, were high schools and the rest middle schools.

High Schools.

6. Of the 105 high schools, the most important numerically were the aided schools, which numbered 39 and were attended by 8,705 pupils, and the unaided schools, of which there were 23 with 6,753 pupils. Government high schools numbered 20 with 5,356 pupils, while the Native States supported 22 such institutions, at which the attendance was 4,447. There was one Municipal school at Pandharpur with 158 pupils.

Middle Schools.

7. The middle schools numbered 322 and had an attendance of 17,978. Of these only 6 schools, attended by 1,098 pupils, were Government institutions. 93 of the middle schools are aided and were attended by 5,723 pupils. Next in numerical importance came the schools supported by the Native States (93 with an attendance of 4,543). District and Municipal schools numbered 73 with an attendance of 3,965, while the unaided schools (57) had an attendance of 2,649 pupils.

Expenditure.

8. The total expenditure on secondary education was Rs. 16,96,783, an increase of Rs. 18,237 on the previous year's figures. Contributions from Provincial Revenues amounted to Rs. 3,38,564, while fees realised Rs. 7,82,661.

Primary Education : Boys.

9. The effects of famine and plague are traceable in the decline of primary schools from 8,307 in 1900 to 8,219 in 1901. The attendance fell from 464,937 to 463,452. There was no fluctuation in the numbers of the Government schools, which remained at 10, but the District and Municipal schools fell from 4,395 to 4,342 and the attendance from 276,042 to 271,468. In the Native States there were 43 fewer schools and 4,183 fewer pupils than in 1900. The number of aided schools declined by 2 to 1,719 with an attendance of 70,020, while the unaided schools increased in number to 87.

Expenditure.

10. The total expenditure on primary education was Rs. 30,59,950, an increase of Rs. 44,185 on the previous year's expenditure. The expenditure from all sources was larger excepting that from Municipal funds, which decreased from Rs. 2,85,859 to Rs. 2,74,354. Provincial Revenues contributed Rs. 7,53,399 against Rs. 7,45,222 in 1900-1901.

Night Schools.

11. The number of night schools declined from 120 to 107 and the attendance from 2,677 to 2,380. The expenditure, which is chiefly provided by Municipal and Local Boards, fell to Rs. 9,153.

Training Schools.

12. With the closing of the Kolhápur College, there were at the end of the year 7 training colleges, of which 5 were Government institutions. The total attendance aggregated 614. For

the training of mistresses there were 10 colleges with 234 pupils. The total expenditure on these training colleges amounted to Rs. 1,64,978, of which Rs. 80,006 were contributed from Provincial Revenues.

Technical Education.

13. The Poona College of Science has already been referred to above. In addition there was an Engineering School in Sind with 14 pupils. The School of Art was attended by 423 pupils (in 1900—381), while the various Industrial Schools, 19 in number, had an attendance of 1,829 pupils. The three Medical Schools, including the Veterinary College at Parel, attracted an attendance of 230 pupils. Agricultural and Commercial Schools and classes numbered 10 and were attended by 678 pupils. The total expenditure on this branch of education amounted to Rs. 74,303, of which Rs. 57,250 were contributed by Provincial Revenues.

Female Education.

14. The number of girls in public institutions advanced from 81,054 in 1900 to 81,477. In addition there were 11,586 girls being educated in private institutions, bringing up the total of girls under instruction to 93,063. Of this total 73 per cent. were Hindus, 12 per cent. Mahommedans and 5 per cent. Native Christians. The number of girls in the lower primary stage (38,327) was nearly equal to that in the upper primary and middle stages taken together. Girls in high and middle schools numbered 1,283, while the number of students in Arts Colleges and special schools was 420, of whom 234 were in training schools. Secondary education for girls is chiefly imparted in aided schools, which numbered 58 (attendance 4,794), out of a total of 67 (attendance 5,136). There are two Government secondary schools at Poona and Ahmedábád. Primary schools for girls numbered 768 with an attendance of 49,754 pupils. Of this number 221 (14,876 pupils) are situated in the Native States, while the District and Municipal schools numbered 315 with 18,814 pupils. Aided schools followed next with 212 institutions and 14,177 pupils. Unaided schools numbered 17 with 1,524 pupils. The expenditure on female education amounted to Rs. 7,75,898 against Rs. 8,18,008 in 1900-1901. Of this total the contribution from Provincial Revenues amounted to Rs. 1,61,445.

European Education.

15. The number of European pupils was 4,164, of whom 3,412 were under instruction in institutions for Europeans, while 752 attended non-European institutions. 39 per cent. of the European schools were in the lower primary stage of instruction, while 21 per cent. and 13 per cent. were in the middle and high stages of instruction, respectively. Of the 46 schools for Europeans, 44 were in receipt of grants-in-aid amounting to Rs. 95,773 from Provincial Revenues and to Rs. 946 from Municipal funds.

Mahommedan Education.

16. The number of Mahommedans under instruction increased from 101,921 to 134,809. Of this total 98,382 were under instruction in public institutions. The bulk of these (95,100) were in primary schools, but there is now a tendency to pursue education beyond the primary stage. 31 Mahommedans passed the Matriculation Examination, while 21 were successful in the Intermediate Examination. In the Arts and Professional Colleges the number of Mahommedans was 105.

Aboriginal and Hill Tribes.

17. There were 1,480 pupils belonging to these classes at the end of the year in the Central Division. One was in the Poona Training College, one in the Normal School at Nagar, four attended the Technical School at Dhulia. The rest were in Primary Schools. There are five separate schools for these classes in Khándesh and ten in Poona. Elsewhere the children are taught in the ordinary Municipal and Local Board Schools. Some of them have reached the Sixth Standard and some have even passed the Public Service Certificate Examination. In the Southern Division there are 28 schools and classes specially established for backward and depressed classes, 18 in British Districts maintained by Local and Municipal Boards and 10 in Native States. In spite of scarcity, the number of pupils has risen in the Northern Division from 5,160 to 6,183. Out of 256 Local Board Schools, 39 are set apart for them and, as in the Southern Division, an attempt is made to attract them by scholarships and presents of clothes, books, slates, &c. No special provision is made in Káthiáwár, but the number of aborigines studying in Primary Schools has fallen during the last year from 22 to 16.

Depressed Classes.

18. The total number of low caste children under instruction in the Central Division at the end of last year was 7,304. Twelve were in Secondary Schools, 28 in Training Schools, 200 in Industrial Schools and the rest in Primary Schools. There were also 18 Mahars in Normal Schools. There are 48 Special Schools for boys of these castes. The chief schools and the best managed are Mission Schools in which a large number of famine waifs and strays have been enrolled. Of the schools twelve are under teachers belonging to these classes and the rest under Mahommedans. The number in the Northern Division has, in spite of famine, risen in the last five years from 3,119 to 3,274. In Káthiáwár only 12 pupils are returned and these are found in two schools.

Special Classes.

19. The Rajkumár College was attended by 43 pupils, of whom 15 came from States outside Káthiáwár, two being Mahommedans. The attendance at the Girásia School at Gondal improved from 58 to 74. At the Tálukdári Girásia School at Wadhwán the number of pupils rose from 60 to 63. The Scott College at Sádra had 20 pupils against 26 in 1900-1901.

3. Literature and the Press.

For details *vide* appendices to the Annual Report on Native publications and Native papers for 1901-1902 and Table No. 12—Press appended to Judicial and Administrative Statistics of British India for 1901-1902.

Native Publications.

The number of publications increased from 1,158 to 1,288. Of these, 706 were books and 582 periodicals. The number of books in English was 51; books in Gujaráti diminished by 10 to 213, while Maráthi works numbered 100, as in the previous year. There was no improvement either in the number or in the quality of the works written in Kánarese and Sindhi. As in previous years, poetry and religion formed the subject-matter of the majority (242), while miscellaneous subjects claimed 167. Of the 582 periodicals, 369 treated of miscellaneous subjects. With few exceptions, the vernacular publications of the year were of an insignificant character.

Newspapers.

At the end of 1901 there were 147 newspapers and 5 periodicals against 158 newspapers and 5 periodicals in 1900. 13 newspapers were newly started in 1901 and 24 of the old publications ceased to exist. Of the total of 152 newspapers 25 per cent. were published in the City of Bombay, 28 per cent. in the Central Division, the rest being divided among the other Divisions. The largest circulation was that of the *Kesari* (13,000), while the *Bombay Samachar* with 4,000 headed the list of the Gujaráti newspapers. The *Rast Goftar* and the *Akhbar-e-Soudagar* celebrated their Jubilee in 1901.

The news of the death of Queen Victoria was received with profound sorrow in which the whole Native Press joined without distinction. Exception was taken to the arrangements undertaken officially to observe the death of the Queen; and a contrast was drawn with those made by Native Princes who, it was alleged, had appreciated the situation more truly. The Viceroy's project to perpetuate the memory of the Queen by the erection of a Memorial Hall in Calcutta was received with disapproval, which was, however, considerably modified by the Viceroy's assurance that his project was not intended to interfere with the dedication of funds to local objects. The message of His Majesty King Edward VII to the Indian Princes and people on his accession was hailed with satisfaction; and the announcement of the proposed holding of a Coronation Darbár at Delhi was looked upon as a graceful survival of the old Moghul ceremony, and hopes expressed that the parallel would extend to the conferment of substantial concessions on the people. The attitude of the Press towards the Boer war underwent scarcely any modification, and from some quarters extravagant encomiums were lavished on the Boers for their so-called "love of liberty and sturdy valour." The appointment of the Famine Commission was looked upon with approval, and its criticisms on the famine policy of the Bombay Government were thought to be well deserved. Mr. Maconochie's report on the Gujarát revenue enquiry was warmly welcomed. The plague policy of the Bombay Government was pronounced to be in consonance with the views of the Government of India, but exception was taken in some quarters to what was called a policy of *laissez faire* in plague administration. The appointment of the Irrigation Commission was received with approval, but beyond expressing its gratification, the Native Press as a whole showed little interest in its proceedings. The scheme proposed by the Agricultural Banks Committee was looked upon with scepticism. Sir Edward Law's financial statement was vigorously assailed as "extravagantly optimistic," and a similar criticism was meted out to Lord George Hamilton's budget speech. The Pennell case loomed largely in the columns of the Native Press: and the alleged "disclosures" of Mr. Pennell were considered to demand an immediate and complete separation of judicial and executive functions. The extension of the Dakhan Agriculturists' Relief Act to Sind was viewed with emphatic disapproval. In judicial matters the fracas between three British soldiers and some Násik villagers was the only case in the Presidency to attract notice. Legislative matters occupied the attention of the Press in a marked degree: in particular the amendment of the Land Revenue Code evoked a storm of hostile criticism. It was alleged that the Bill was passed in defiance of public opinion and by means of the "mechanical majority" of official votes. In Municipal matters the alleged perfunctory administration of the Ahmedabad and Kaira Municipalities was the subject of frequent complaints. The Bombay Improvement Trust also came in for considerable criticism on the score of dilatoriness. In educational matters, exception was taken to the "exclusively official" character of the Simla Conference; while the *personnel* of the Universities Commission was considered to be eminently satisfactory. The scheme for an Imperial Cadet Corps was looked upon as a fitting recognition of the loyalty shown by the Princes during the war in China and South Africa.

The chief institution under this head is the Bombay Branch of the Royal Asiatic Society, established in 1804 for the investigation and encouragement of Oriental arts, sciences and literature. Another important society is the Sassoon Mechanics' Institute, so called in memory of the late Sir David Sassoon, the chief benefactor of the Society, which is intended for the promotion of scientific and mechanical knowledge. Government assists the Institute by the

gratuitous presentation of books and pamphlets and by an annual grant of Rs. 300 for lectures. A third society is the Gujaráti Dnyan Prasárak Mandali, which is a branch of the Students' Literary and Scientific Society, its object being the diffusion of useful knowledge through the medium of the Gujaráti language. For this purpose lectures on various literary and scientific subjects are delivered in Gujaráti under the auspices of the Society at the Framji Cowasji Institute and elsewhere. The Society receives an annual grant of Rs. 300 from Government.

Native Libraries.

2. For the encouragement of libraries and reading-rooms established by independent agency, Government yearly sanctions the gratuitous presentation of books purchased from the grant for the encouragement of literature. The number of libraries registered as worthy of this assistance was last year 131 for the whole Presidency, or 6 less than the number at the time of the previous decennial report.

Museums.

3. There are two museums in this Presidency which deserve notice, the Victoria and Albert Museum in the City of Bombay, and the museum attached to the General Library in Karáchi. There are also two educational museums, one in the Elphinstone Middle School in Bombay, and the other in the High School at Poona. In these, books and furniture intended for school use are kept for general inspection.

5. Arts and Sciences.

Victoria and Albert Museum.

Numerous additions were made to various sections of the Museum. The total number of visitors was 668,700, giving a daily average of 2,136 against 2,641 in the previous year. The cost amounted to Rs. 10,362.

Karáchi Museum.

2. Among miscellaneous donations to the Karáchi Museum were six silver coins of Shah Jahan and Aurangzeb, which were presented by the Bombay Branch of the Royal Asiatic Society. The total number of visitors was 36,104 against 32,722 in 1900-1901. The cost amounted to Rs. 1,187.

CHAPTER VIII.—ARCHÆOLOGY.

Archæological Survey of Western India.

The Superintendent's tour was almost entirely confined to the Berars, with short visits to Bhojpur (Bhopal) and Ter (Hyderabad). Proposals for repairing the tomb of Diláwar Khán at Khed (Poona) were submitted.

A sum of Rs. 22,570 was spent in the conservation of ancient monuments. The principal works carried out were the restoration of Siddi Sayyid Mosque, the repairing of the mosques and tombs of Achut-Bibi, and of Ahmadshah in Ahmedabad, repairs to the Elephanta Caves and to the Mohammadan buildings in Bijápur, including special repairs to the Ibrahim Roza.

CHAPTER IX.—MISCELLANEOUS.

THE Church Establishments maintained by the State in this Presidency are connected with the Established Church of England and the Established Church of Scotland. Certain allowances are also granted by Government to the Roman Catholic Church and the Wesleyan Church for ministrations to Troops, &c.

THE ESTABLISHED CHURCH OF ENGLAND.

Creation of Diocese.

2. By Letters Patent, dated at Westminster, 1st October 1837, 7th William IV, it was ordained that the territories within the limits of the Presidency of Bombay should cease to be part of the Diocese of Calcutta, and should be under the ecclesiastical jurisdiction of the Bishop of Bombay who was, at the same time, declared to be suffragan to the Bishop of Calcutta for the time being.

Bishop.

3. The Bishops who have held office since the above date have been as follows:—

The Right Reverend Thomas Carr,
The Right Reverend John Harding,
The Right Reverend Henry Alexander Douglas,
The Right Reverend Louis George Mylne,
The Right Reverend James MacArthur, D.D., the present incumbent.

Archdeacon and his functions.

4. Under the same Letters Patent the Bishop of Bombay appoints an Archdeacon, who is the medium of routine correspondence between Government and the Chaplains and relieves the Bishop generally of the purely secular part of the administrative work of the Diocese. He also acts as Commissary during the avoidance of the See or the absence of the Bishop.

Diocese.

5. The Diocese includes the territories within the limits of the Presidency of Bombay, excepting Sind, which was transferred to the Diocese of Lahore in 1877. The Bishop also visits Neemuch, Nasirábád, Deesa and Abu.

Chaplains.

6. The number of Chaplains in the Diocese is 25, one Chaplain having since the last decennial report been transferred to the Lahore Diocese to provide for ministrations to British troops in the Panjáb. In addition to these, the Diocese is served by 58 other Clergymen, of whom 14 are natives of this country.

Honorary Canons.

7. The appointment of six Honorary Canons in connection with St. Thomas' Cathedral, Bombay, was sanctioned in 1900. The Chaplains, on whom the honorary rank is conferred, are selected from those on the Establishment or from other clergy working in the Diocese. The title carries with it no legal right, status or privilege.

Disposition of Chaplains.

8. The following table indicates the disposition and charges of the Chaplains:—

District.	Stations.	Churches or other Places of Worship.	Remarks.	Chaplains.	Troops.
Northern Gujarát with Káthiáwár and Cutch.	Ahmedábád	St. George's Church, Camp ...	.....	1	212.
	Do.	Christ Church, City			
	Baroda	St. James' Church			
	Kaira	St. George's Church			
	Rájkot	Christ Church			
	Bhávnagar	.....			
	Bhuj	St. Andrew's Church			
Southern Gujarát ...	Broach	St. Matthias Christ Church ...	Visited from Bombay.	...	...
	Surat	.....			
Násik	Devláli	Barrack Room Church ...	Number of Troops at Devláli varies indefinitely with the season of the year.	1	144
Ahmednagar	Ahmednagar	Christ Church	.....	1	225
	Sirúr	Sirúr			
Málegaon	Málegaon	Christ Church	Visited from Málegaon.	...	...
	Dhulia	.....			

District.	Stations.	Churches or other Places of Worship.	Remarks.	Chaplains.	Troops.
Poona and Kirkee ...	Poona	St. Mary's Church	.....	4	2,825
	Do.	St. Paul's Church			
	Ghorpuri	Ghorpuri Chapel			
		Yerowda Jail			
		Military Prison...			
	Purandhar	Holy Trinity Church			
	Khandála	Christ Church			
	Kirkee	All Saints'			
	Dhond	.....	Visited from Kirkee ...	...	...
Sátára	Sátára	St. Thomas	.....	1	66
	Mahábaleshvar ...	Christ Church			
	Panchgani	.....			
Belgaum	Belgaum	St. Mary's Church, Camp ...	.....	1	1,146
	Do.	Christ Church, Fort			
	Amboli or Sávantvádi.	.....			
Dhárwár	Dhárwár	All Saints' Church	Visited from Dhárwár.	1	...
	Hubli...	.....			
	Castle Rock	.....			
	Gadag	.....			
	Marmagaon * ...	.....	* Also visited on Konkan tour.	...	...
	Bijápur	.....			
	Hotgi...	.....			
Bombay	Bombay	.....			
	Do.	Christ Church, Byculla ...	No statistics to show what proportion of Civil population of Bombay is served by Clergy other than Chaplains.	5	1,250
	Do.	St. John's, Colába			
	Do.	All Saints', Malábár Hill ...			
	Mátherán	St. Paul's			
	Bándra	St. Stephen's			
	Thána	St. James'			
	Broach	.....			
	Surat	Visited from Bombay			
	Baroda	.....			
Aden	Aden Camp	St. Mary's Church	Civil and Military not distinguished with accuracy.	2	488
	Aden Str. Point ...	Christ Church			
Igatpuri	Igatpuri	St. Matthias' Church	Visited from Igatpuri.	...	...
	Nándgaon	.....			
	Manmád	St. Barnabas'			
	Kalyán	.....			
Deesa	Deesa	Christ Church	.....	1	557
	Abu	St. Saviour's			48
	Abu Road	Abu Road Station			
	Erinpura	.....			
Neemuch	Neemuch	Barrack Room Church ...	Visited from Neemuch.	1	No return of number of troops received.
	Kairwara	.....			
	Udeypur	.....			
Nasirábád	Nasirábád	St. Paul's Church	Visited from Nasirabad.	1	214
	Deoli	.....			
	Beawar	.....			
	Taragar	.....			
The Konkan	Ratnágiri	.....	Visited from time to time by a Clergyman detailed for the tour.	...	...
	Marmagaon	.....			
	Kárwár	.....			
			Total ...	20	7,175
			Five on ordinary furlough, furlough on medical certificate or special leave.	5	
			Grand Total ...	25	

The Clergy not on the Establishment are as follows:—

Society for the Propagation of the Gospel...	17
Church Missionary Society	22
Society of St. John the Evangelist	13
Additional Clergy Society	4
Chaplain of Panchgani	1
Harbour Chaplain...	1
	58

58 With two exceptions, the Clergy supported by the two Missionary Societies are engaged exclusively or primarily in mission work.

Places of worship.

9. Since the last decennial report 5 new churches have been consecrated and 4 dedicated, the total number of places of worship in the Diocese being as under:—

Consecrated churches	50
Buildings set apart for public worship, including churches not consecrated ...	39
Churches and buildings under construction	4
	93

2.—THE ESTABLISHED CHURCH OF SCOTLAND.

Early position of the Church.

1. The Church of Scotland in this Presidency was placed upon its present basis in 1837 by 3 and 4, William IV, Chapter 85. Before the passing of this Act, however, the Honourable Court of Directors of the East India Company had, in conjunction with the General Assembly of the Church of Scotland, constituted in the Presidency two ecclesiastical charges, one in 1815 and the other in 1823. Both the Senior and the Junior Chaplains were stationed in the City of Bombay till 1859, when the establishment was increased to four Chaplains, at which number it has since remained. Of these, ordinarily, two belong to the Senior Grade and two to the Junior Grade, but owing to the retirement of two Senior Chaplains within a short time of each other there is at present but one Chaplain of the Senior Grade, two Junior Chaplains and one Chaplain on probation.

Distribution of Chaplains.

2. The staff is distributed as follows:—The Senior Chaplain, who is styled the Presidency Senior Chaplain, is on duty in the City of Bombay; one of the Junior Chaplains is attached to a Scotch Regiment at Poona and the other is Chaplain at Karáchi, while the Probationary Chaplain is on duty in Bengal.

Besides these, there are Ministers at Mhow, Quetta, Belgaum, Nasirábád, Ahmednagar and Aden, who receive allowances from Government for ministrations to troops.

Churches.

3. There are at present 6 Presbyterian Churches under the control of the Chaplains and Acting Chaplains and 13 other buildings used for Divine Service scattered throughout the Presidency of Bombay.

3.—THE ROMAN CATHOLIC CHURCH.

Jurisdiction.

1. The administration of the Roman Catholic Church in Western India has continued on the lines settled in 1886, when Daman, which was formerly under the Archbishop of Goa, was constituted a Bishopric, the Vicariate Apostolic of Bombay was made an Archbishopric, and Poona, which was under the Spiritual jurisdiction of the Vicar Apostolic of Bombay, was raised to a Bishopric.

Province of Goa.

2. The Province of Goa comprises the Dioceses of Goa, Daman, Cochin and Meliapur. The Bishops of this Province are nominated by the King of Portugal, subject to the approbation and confirmation of the Pope.

Province of Bombay.

3. The Province of Bombay consists of the Archdiocese of Bombay and the Suffragan See of Poona.

Archdiocese of Bombay.

4. The Archdiocese of Bombay consists of the City and Island of Bombay, of Gujarát, North of the Narbada, Cutch, Rajputána, Sind and Beluchistan up to Cabul. The present Archbishop, who is the second Archbishop of Bombay, is the Most Reverend Dr. Theodore Dalhoff, S.J. There are 69 priests, of whom 39 are engaged in educational work. There are 46 Churches or chapels in which Divine Service is held.

Diocese of Poona.

5. The Diocese of Poona comprises nearly all the Bombay Dakhan with the exception of Belgaum District. The Right Reverend Dr. Bernard Beider-Linden, S.J., the present incumbent, has held office since the Diocese was formed. There are 33 priests, of whom 22 are Europeans and 11 Natives. Of the European priests, 5 minister to the spiritual wants of troops, and on this account receive salaries from Government. Of the others, two only, those of Dhulia and Mahábaleshvar, receive small allowances from Government. There are 36 churches and chapels entirely set apart for Divine Service.

Diocese of Daman.

6. The Diocese of Daman is for administrative purposes divided as follows, *viz.*:—District of Daman comprising the Portuguese possessions of Daman and Diu; District of Bassein; District of Thána, comprising the Island of Sálsette with Karanja, Chaul and Mátheran; and District of Bombay, which comprises five churches and six chapels situated within the Island of Bombay, but exempted by the Pope from the jurisdiction of the Archbishop of that Province.

7. The Right Reverend D. Sebastian Joseph Pereira, the present incumbent, is the second Bishop of Daman, and he is assisted by 79 priests, some of whom receive allowances from Government. There are 48 churches and 23 chapels used for Divine Worship.

4.—ESTABLISHED CHURCH OF ENGLAND.

No change took place in the permanent strength of the Ecclesiastical establishment of the Presidency. The Government Chaplains numbered 25, in addition to whom 8 clergymen from various Missionary organisations were in receipt of allowances from Government.

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2. The number of churches or buildings used for public worship amounted to sixty-one. Three new churches at Tándulvádi, Manmád and Gadag-Bettigeri were consecrated during the year.

5.—ESTABLISHED CHURCH OF SCOTLAND.

1. The establishment consisted of one Senior Chaplain, two Junior Chaplains, one Chaplain on probation and six Officiating Chaplains.

2. The regular church buildings under the control of the Chaplains were 6 in number, and 13 other buildings (Mission Churches, School Rooms, &c.) were also used for public worship at different stations.

2. Stationery.

The value of stock in hand at the beginning of the year was Rs. 2,64,595 and additions to the value of Rs. 5,68,803 were made during the year. The issues amounted to Rs. 5,56,727, leaving a balance of stores at the end of the year worth Rs. 2,76,671. The net gain to Government by the substitution of Indian for English stores was Rs. 25,376 against Rs. 90,448 in the previous year.

3. General Miscellaneous.

GOVERNMENT CENTRAL PRESS.

Owing to a decrease in the number of stock forms—principally Famine forms—printed during the year, the gross earnings of the Government Central Press fell to Rs. 5,06,416, while the net earnings rose slightly by Rs. 2,905 to Rs. 1,33,572. The total expenditure, allowing for depreciation of plant, and including a book charge of Rs. 17,400 for the rent of the Press building, fell from Rs. 3,77,945 to Rs. 3,72,844, this decrease being due to a falling off in disbursements on account of piece-work, consequent on the curtailment of annual reports ordered by the Government of India.

GOVERNMENT PRINTING PRESS, KARA'CHI.

The gross earnings rose from Rs. 56,532 to Rs. 57,542, and the expenditure from Rs. 39,228 to Rs. 40,131. The profits amounting to Rs. 17,411 were the highest on record. The improvement was chiefly due to increases in the value of printing done for the *Sind Official Gazette*, and of vernacular forms and books.

GOVERNMENT PHOTOZINCOGRAPHIC OFFICE, POONA.

During the year 2,026 district, táluka and village maps were printed, the total number of copies struck off being 57,878, showing a decrease, as contrasted with the previous year's figures, of 258 and 12,174, respectively. The number of miscellaneous maps, forms, &c., printed amounted to 1,907, of which 869,292 copies as against 952,559 in 1900-1901 were struck off.

The book value of official unpaid work fell to Rs. 82,163, while the paid work realised Rs. 22,754, as against Rs. 35,062 in the previous year, the total value of the work turned out at the office, inclusive of miscellaneous cash receipts, standing at Rs. 1,10,318 as against Rs. 1,18,979 for the previous year.

Expenditure on the other hand showed a decrease from Rs. 86,443 to Rs. 77,279, leaving the office with a credit balance of Rs. 33,039 as against Rs. 32,536 for 1900-1901.